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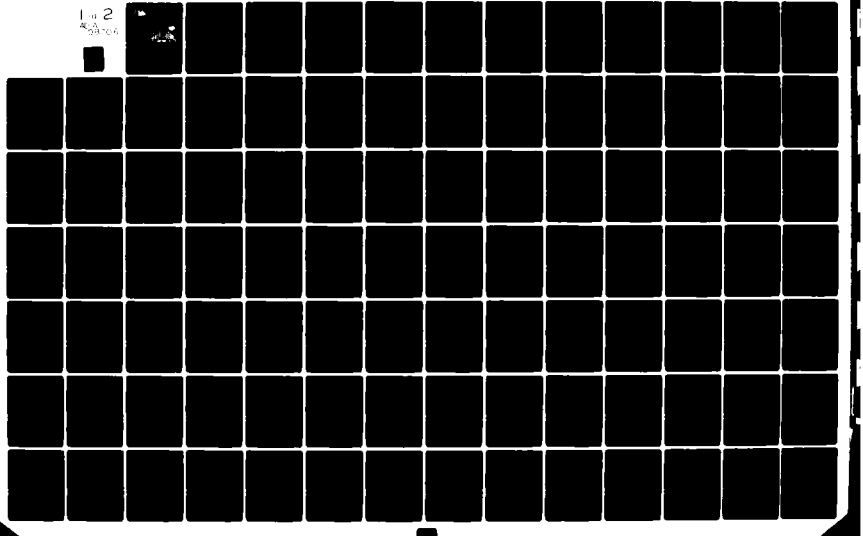

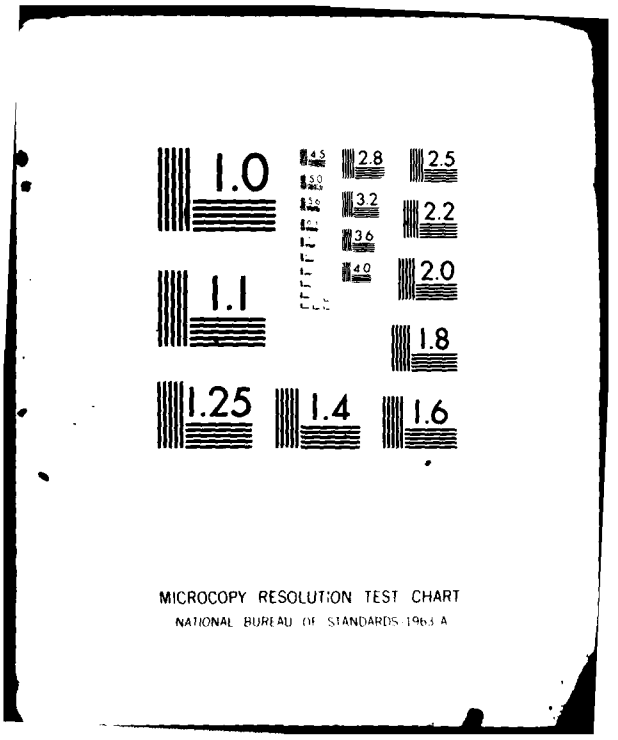

UNITED STATES AIR FORCE

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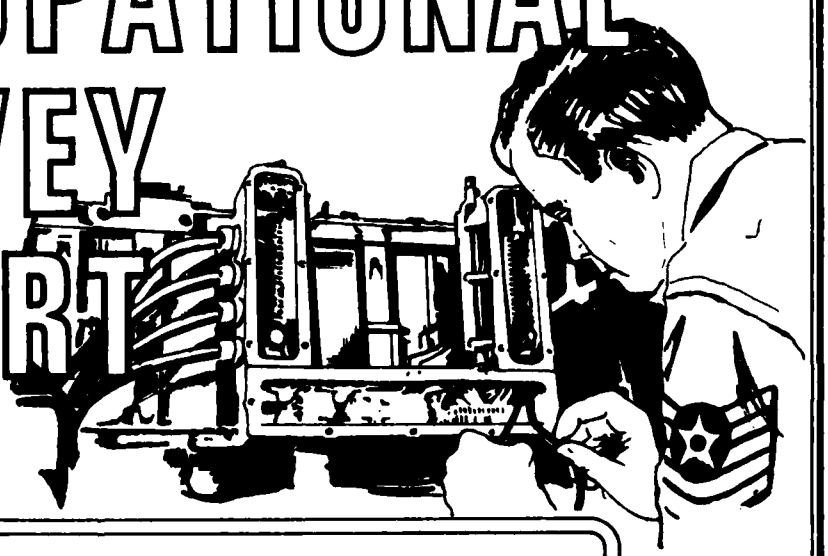
OCCUPATIONAL SURVEY REPORT



WIDEBAND COMMUNICATION EQUIPMENT SPECIALTY,
AFSC 304X0.
AFPT 90-304-422
VOL II OF IV
NOVEMBER 1981

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78150

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HQ AFCC/MPXT	3	3
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OL-B, 3300 TECH TNG ADVISOR (AFCC)	1	1

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PREFACE

This report presents the results of a detailed Air Force occupational survey of the Wideband Communications Equipment (AFS 304X0) career ladder. The report was prepared for AFMPC/MPCRPQ in response to their request for occupational data on the tasks and jobs performed by 304X0, 304X4, and 304X6 personnel, with primary emphasis on the possible merger of the three career ladders. Authority for conducting surveys is contained in AFR 35-2. Computer outputs from which this report was produced are available for use by operating and training officials.

The Air Force occupational survey program has been in existence since 1956 when initial research was undertaken by the Air Force Human Resources Laboratory (Air Force Systems Command) to develop a methodology for gathering and analyzing occupational information. In 1967, an operational occupational survey program was established within the Air Training Command and surveys were produced annually for 12 enlisted specialties. In 1972, the program was expanded to conduct occupational surveys covering 51 career fields annually. In late 1975, the program was again expanded to include the survey of officer utilization fields, to permit special management applications projects, and to support interservice or joint service occupational analysis.

The survey instrument used in the present project was developed by First Lieutenant Julia Hoskins, Inventory Development Specialist. First Lieutenant Gordon Curphy analyzed the survey data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Career Ladders Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB, Texas 78150.

Copies of this report were distributed to the organizations listed on the preceeding page. Copies are also available for other interested training and management personnel upon request to the USAF Occupational Measurement Center, attention to the Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78150.

This report has been reviewed and is approved.

PAUL T. RINGENBACH, Col, USAF
Commander
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Chief, Occupational Analysis Branch
USAF Occupational Measurement Center

SUMMARY OF RESULTS

1. Survey Coverage: Inventory booklets were administered to Wideband Communications Equipment (AFS 304X0) personnel worldwide. Survey results are based on the responses of 996 incumbents (35 percent of assigned). A majority of the incumbents surveyed were assigned to AFCC.

2. Career Ladder Structure: DAFSC 304X0 personnel were found to be performing a wide variety of jobs. Twenty different jobs were identified, with a majority of the personnel performing maintenance or installation functions on a variety of wideband communications equipment. In addition, 12 of the 20 major job groups were identified as performing a nontechnical type of job involving administration, supervision, or training. Job satisfaction data for each of the 20 major job groups were examined, and the most dissatisfied personnel were found to be performing a job control or Engineering and Installation (E&I) type of job.

3. Career Ladder Progression: Three-skill level personnel spend most of their time maintaining transmitters, performing support functions, performing equipment operation functions, or maintaining voice and teletype multiplexers. DAFSC 30450 personnel spend slightly less time on these types of duties and spend somewhat more time on supervisory or training functions. Seven-skill level personnel are primarily firstline supervisors, and roughly divide their time performing supervisory and radio maintenance duties.

4. TAFMS Groups: The trend of an increasing percentage of time spent on supervisory tasks with increasing months TAFMS is typical. A review of job satisfaction data revealed 304X0 first-term (1-48 months TAFMS), second-term (49-96 months TAFMS), and career (97+ months TAFMS) personnel are about as satisfied with their jobs as the personnel in other related career ladders. In addition, an examination of the wideband communication equipment maintained by first-term, second-term, and career personnel reveal that in many cases, a higher percentage of 304X0 first-termers maintain specific pieces of radio equipment than second-term or career personnel.

5. Analysis of CONUS Versus Overseas Groups: Overall, the jobs performed by these two groups were similar. Base Installation Security Systems (BISS) tasks were more likely to be performed by CONUS personnel, while several types of radio operations and maintenance tasks were more likely to be performed by overseas personnel.

6. Major Command Comparison: AFCC respondents were best differentiated by the BISS tasks they performed. ATC personnel conduct various phases of resident course classroom training, and training tasks best differentiated these incumbents. TAC personnel are primarily working in tactical communications units and combat communications groups, and mobility type tasks best differentiated these incumbents.

7. Training Analysis: The 3-, 5-, and 7-skill level AFR 39-1 Specialty Descriptions were found to provide a clear overview of the 304X0 career ladder. The STS, dated April 1980, appears to be comprehensive.

8. Implications: Although a diversity of jobs are performed by 304X0 personnel, several jobs currently being performed by 304X0 personnel need to be examined. Specifically, management needs to look at the whole 30XXX career field and determine whether job control or E&I functions should have two separate AFSCs, rather than the current policy of using unit manning. In addition, the creation of additional job control slots for 304X0 personnel in CONUS to help an unfavorable rotation index (URI) needs to be reexamined.

OCCUPATIONAL SURVEY REPORT
WIDEBAND COMMUNICATIONS EQUIPMENT SPECIALTY
(AFS 304X0)

INTRODUCTION

This is a report of an occupational survey of the Wideband Communications Equipment (AFS 304X0) specialty, completed by the Occupational Analysis Branch, USAF Occupational Measurement Center, in September 1981. The survey was initiated at the request of AFMPC/MPCRPQ to determine the feasibility of merging three radio maintenance specialties (AFSs 304X0, 304X4, and 304X6) into a common specialty. In order to properly address this issue, personnel in all three specialties were surveyed using a common job inventory. The feasibility of merging the three specialties and other types of analyses across the three career ladders are presented in a combined report (AFPT 90-304-422, Volume I). This report concentrates primarily on the results relating to the Wideband Communications Equipment (AFS 304X0) specialty. Detailed results of the Ground Radio Communications (AFS 304X4) and Space Communications Systems Equipment (AFS 304X6) specialties are provided in two separate reports (AFPT 90-304-422, Volumes III and IV).

Background

As outlined in the current AFR 39-1 Specialty Descriptions, Wideband Communications Equipment personnel are responsible for installing or maintaining fixed, mobile, or transportable wideband communications systems, including tropospheric scatter and line-of-sight radio, analog to digital multiplex, signaling and termination equipment, and intrusion detection systems. These incumbents are primarily assigned to Communications Squadrons and Groups, Technical Control Facilities, or Combat Communications Groups, and are responsible for maintaining the tropospheric scatter and line-of-sight radios associated with these organizations.

Historically, the 304X0 career ladder was created in 1954 under the title "Radio Relay Equipment Repairmen". In May 1955, three shreds were created, with an A shred designating microwave equipment, a B shred for carrier equipment, and a C shred for ANTRAC equipment. The shreds were deleted later in 1955 and the career ladder remained unchanged until 1977. In April 1977, the title of the career ladder was changed to "Wideband Communications Equipment", and the career ladder has remained unchanged since that time.

Formal training for personnel entering the 304X0 specialty is available at Keesler Technical Training Center. This is a 110-day course in which future Wideband Communications Equipment personnel are oriented in the areas of: electronic principles, safety hazards, test equipment, transmitters, receivers, perimeter security systems, wideband systems, and multiplexer systems. Approximately 1,000 personnel successfully complete this 3ABR30430 course a year. Upon completion, graduates are awarded a 3-skill level and are assigned to various units worldwide.

Objectives

This report will primarily examine the Wideband Communications Equipment specialty (AFS 304X0) on the basis of the tasks performed by the survey respondents. It is important to note, however, that the survey instrument used for this report was a combined 304X0, 304X4, and 304X6 survey. The results of the 304X4, 304X6, and joint 304X0, 304X4, and 304X6 analyses are presented in three separate reports (AFPT 90-304-422, Volumes I, III, and IV). We recommend that users of this report also examine the other three reports in order to better assess the 304X0 specialty. Topics discussed in this report include: (1) development and administration of the survey instrument; (2) the jobs performed by 304X0 personnel; (3) CONUS versus overseas differences; (4) comparisons of the job structure to current AFR 39-1 Specialty Descriptions and the Specialty Training Standard (STS); and (5) job satisfaction and other related background data.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory AFPT 90-304-422. As a starting point, the tasks listed in the 1975 304X0, the 1976 304X4, and the 1976 304X6 job inventories were reviewed for currency by the Inventory Development Specialist and Instructors from each specialty at Keesler Technical Training Center. They then reviewed all pertinent career ladder publications and directives for additional radio related tasks. This tentative task list was then reviewed for completeness and accuracy by 304X0, 304X4, and 304X6 personnel at Andrews AFB MD, Tinker AFB OK, Robins AFB GA, and Offutt AFB NE. The resulting task list was reviewed again by Keesler Technical Training Instructors representing all three AFSCs who sat in a face-to-face encounter to insure the tasks were representative of the jobs performed by 304X0, 304X4, and 304X6 personnel. This encounter helped to insure that the skills and knowledges needed to perform a task were the same, regardless of the equipment associated with the task. For example, wiring diagrams of VHF radio equipment using amplifiers were presented during the encounter, and the training instructors debated on whether the skills and knowledges needed to isolate malfunctions on one type of equipment were essentially the same as for other types of equipment. If the skills and knowledges were similar, then only one task was written, such as "isolate AM receiver malfunctions". If the skills and knowledges differed to some degree, then a number of more equipment specific tasks were written, such as "isolate malfunctions in GIANT TALK control consoles." Another example of this type of commonality discussion centered around components of various systems. In this study, there was a consensus that most components removed and replaced required the same skill no matter what system they were located in. For example, the task "remove or replace limiter components" indicates that the skill is the same no matter in what equipment it is located.

This process resulted in a final job inventory of 863 tasks grouped under 23 duty headings. In addition, a background section was included which asked for information about each respondent, such as grade, Total Active Federal Military Service (TAFMS), duty title, job interest, and the type of radio system maintained or operated.

Job Inventory Administration

During the period October 1980 through February 1981, Consolidated Base Personnel Offices in operational units worldwide administered the inventory to approximately 50 percent of the job incumbents holding a DAFSC of 304X0, 304X4, or 304X6. AFMPC personnel data tapes available through the Air Force Human Resources Laboratory (AFHRL) identified these job incumbents.

Each individual who filled out an inventory first completed an identification and biographical information section and then checked each task performed in their current job. After checking all tasks performed, each member then rated each of these tasks on a nine-point scale showing relative time spent on the task as compared to all other tasks checked. The ratings ranged from one (very small amount of time spent) through five (about average time spent) to nine (very large amount time spent).

To determine relative time spent for each task checked by a respondent, all of an incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task is then divided by the total task ratings and multiplied by 100. This procedure provides a basis for comparing tasks in terms of both percent members performing and relative percent time spent.

Task Factor Administration

In addition to completing the job inventory, selected senior 304X0 personnel were also asked to complete a second booklet for task difficulty. The task difficulty rating booklets are processed separately from the job inventories. This information is used in a number of different analyses discussed in more detail within the report.

Task Difficulty. We asked each senior NCO completing a task difficulty booklet to rate all of the tasks on a nine-point scale from extremely low to extremely high as to the relative difficulty of that task. Difficulty is defined as the length of time is requires an average member to learn to do that task. Task difficulty data was independently solicited from experienced 7- or 9-skill level personnel stationed worldwide in the speciality. The interrater reliability (as assessed through components of variance of standard group means) for the 38 DAFSC 304X0 raters who returned booklets was .91, which suggests very high agreement. Ratings were then adjusted so that tasks of average difficulty have ratings of 5.0. The resulting data is a rank ordering of tasks indicating a degree of difficulty for each task in the inventory.

Job Difficulty Index. After computing the task difficulty index for each item, it is then possible to compute a Job Difficulty Index (JDI) for the job groups identified in the survey analysis. This index provides a relative measure of which jobs, when compared to other jobs identified, are more or less difficult. An equation using the number of tasks performed and the average difficulty per unit time spent as variables are the basis for the JDI. This index ranges from one for very easy jobs to 25 for very difficult jobs.

The data are adjusted so that the average job difficulty index is 13.00. Thus, the more time a group spends performing difficult tasks, and the more tasks they perform, the higher will be their job difficulty index. The JDI ratings for the 304X0 career ladder can be found in the CAREER LADDER STRUCTURE section of this report.

When used in conjunction with other factors, such as percent members performing, the task difficulty ratings can provide insight into the training requirements of the specialty. This may help validate the lengthening or shortening of specific units of instruction to refine various training programs.

Survey Sample

Personnel were selected to participate in this survey so as to insure an accurate representation across all career ladders, MAJCOMs, and paygrade groups. In this study, 50 percent of the incumbents with a 304X0 DAFSC who were available for sampling were solicited for their responses. Table 1 reflects both the percentage of personnel in all the career ladder in the combined sample as well as the major command distribution of personnel assigned to the career ladder as of the Spring of 1981. Table 2 reflects the percentage distribution by paygrade for the ladder. Table 3 reflects the distribution of the survey sample in terms of TAFMS groups. Overall, a representative sample was obtained, with 996 of the 2,825 respondents assigned to 304X0 career ladder sampled.

Data Processing and Analysis

Once job inventories are returned from the field, they are prepared so that task responses and background information can be optically scanned. Other biographical information (such as name, base, autovon extension) is keypunched onto disks and entered directly into the computer. Once both sets of data are in the computer, they are merged to form a complete case record for each respondent. Computer generated programs using Comprehensive Occupational Data Analysis Programs (CODAP) techniques were then applied to the data.

CODAP produces job descriptions for respondents based on their responses to specific inventory tasks. Computer generated job descriptions are available for DAFSC groups, TAFMS groups, and MAJCOM groups, and include such information as the percent members performing each task, the average percent time spent performing each task, the percent members utilizing various pieces of equipment, and the cumulative average percent time spent by all members for each task in the inventory.

TABLE 1

COMMAND DISTRIBUTION OF SURVEY SAMPLE

MAJOR COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
AFCC	72	70
TAC	7	9
USAFE	3	10
ATC	2	3
OTHER	16	8
TOTAL	100	100

TOTAL 304X0 ASSIGNED: 2,825
TOTAL 304X0 SAMPLED: 996
PERCENT OF ASSIGNED IN SAMPLE: 35%

TABLE 2

PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

PAYGRADE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
AIRMAN	38	38
E-4	19	19
E-5	21	21
E-6	13	14
E-7	9	8
TOTAL	100	100

TABLE 3

TAFMS DISTRIBUTION OF SURVEY SAMPLE

	MONTHS TIME IN SERVICE			
	1-48	49-96	97+	TOTAL
NUMBER IN SAMPLE	495	147	352	996
PERCENT OF 304X0 SAMPLE	50%	15%	35%	100%

CAREER LADDER STRUCTURE

Many times an in-depth description of the different kinds of work accomplished by the personnel in a particular specialty may be needed. Although the AFR 39-1 Specialty Descriptions and Specialty Training Standard (STS) provide an general overview of the type of work performed and equipment maintained, management and training personnel frequently need more specific data for making specialty related decisions. By describing the different types of jobs performed and the types of equipment maintained or operated by the personnel performing these various jobs, management possesses a much more powerful and informative tool for decision-making.

The analysis performed in this section is designed to describe the major types of jobs performed by the personnel in the 304X0 specialty such as job control, quality control, and training. This analysis is primarily based upon the tasks performed and the time spent ratings provided by 304X0 respondents rather than on specialty or other background factors.

For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program (CODAP) system for job analysis. Each individual job description in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the job inventory. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups or new groups are formed based on the similarity of tasks and percent of time spent ratings in each individual job description. This procedure is continued until all individuals and groups are combined to form a single composite representing the total sample. The resulting analysis of the variety of groups of jobs serves to identify: (1) the number and characteristics of the different jobs which exist within the career ladders; (2) the tasks which tend to be performed together by the same respondents; and (3) the breadth or narrowness of the jobs which exist within the Wideband Communications Equipment career ladder.

The basic identifying group used in the hierarchical job structuring process is the Job Type. A job type is a group of individuals who perform many of the same tasks and spend similar amounts of time performing them. When there is a substantial degree of similarity between different job types, they are grouped together and labeled as Clusters. In many career fields, there are specialized job types that are too dissimilar to be grouped into any cluster. These unique groups are labeled Independent Job Types.

The jobs performed by Wideband Communications Equipment career ladder incumbents are illustrated in Figure 1. Based on the similarity of tasks performed and the amount of time spent performing each task, five clusters and 15 independent job types were identified. These clusters and independent job types are on the following pages:

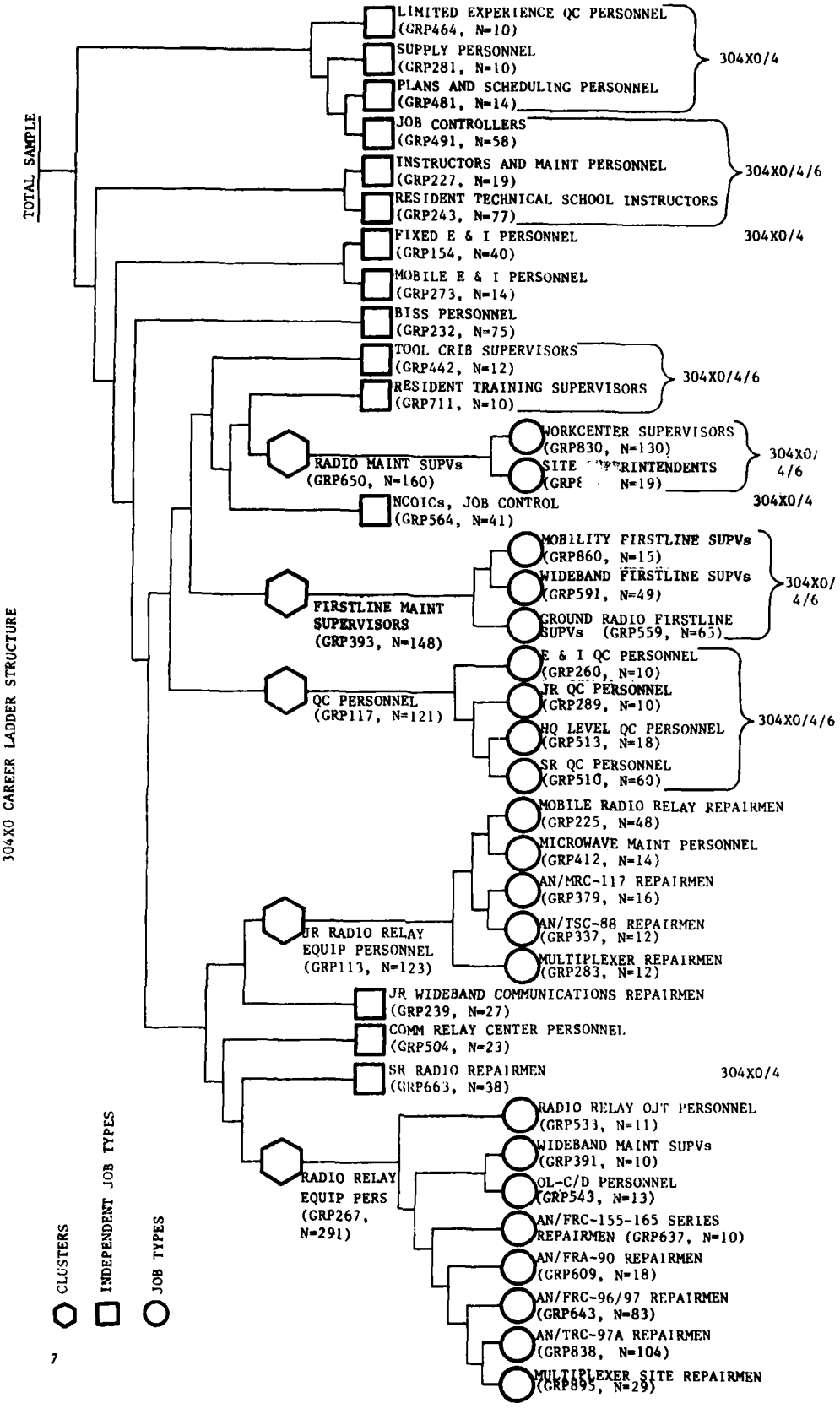


FIGURE 1

304X0 CAREER LADDER STRUCTURE

I. RADIO RELAY EQUIPMENT PERSONNEL (GRP267, N=291)

- a. Multiplexer Site Repairmen (GRP895, N=29)
- b. AN/TRC-97A Repairmen (GRP 838, N=104)
- c. AN/FRC-96/97 Repairmen (GRP643, N=83)
- d. AN/FRA-90 Repairmen (GRP609, N=18)
- e. AN/FRC-155-165 Series Repairmen (GRP637, N=10)
- f. OL-C/D Personnel (GRP543, N=13)
- g. Wideband Maintenance Supervisors (GRP391, N=10)
- h. Radio Relay OJT Personnel (GRP533, N=11)

II. SENIOR RADIO REPAIRMEN (GRP663, N=38)

III. COMMUNICATIONS RELAY CENTER PERSONNEL (GRP504, N=23)

IV. JUNIOR WIDEBAND COMMUNICATIONS REPAIRMEN (GRP239, N=27)

V. JUNIOR RADIO RELAY EQUIPMENT PERSONNEL (GRP113, N=123)

- a. Multiplexer Repairmen (GRP283, N=12)
- b. AN/TSC-88 Repairmen (GRP337, N=12)
- c. AN/MRC-117 Repairmen (GRP379, N=16)
- d. Microwave Maintenance Personnel (GRP412, N=14)
- e. Mobile Radio Relay Repairmen (GRP225, N=48)

VI. QUALITY CONTROL PERSONNEL (GRP117, N=121)

- a. Senior Quality Control Personnel (GRP510, N=60)
- b. HQ Level Quality Control Personnel (GRP513, N=18)
- c. Junior Quality Control Personnel (GRP289, N=10)
- d. E&I Quality Control Personnel (GRP260, N=10)

VII. FIRSTLINE MAINTENANCE SUPERVISORS (GRP393, N=148)

- a. Ground Radio Firstline Supervisors (GRP559, N=65)
- b. Wideband Firstline Supervisors (GRP591, N=49)
- c. Mobility Firstline Supervisors (GRP860, N=15)

VIII. NCOICs, JOB CONTROL (GRP564, N=41)

IX. RADIO MAINTENANCE SUPERVISORS (GRP560, N=160)

- a. Site Superintendents (GRP871, N=19)
- b. Workcenter Supervisors (GRP830, N=130)

X. RESIDENT TRAINING SUPERVISORS (GRP711, N=10)

XI. TOOL CRIB SUPERVISORS (GRP442, N=12)

XII. BASE INSTALLATION SECURITY SYSTEM (BISS) PERSONNEL (GRP232, N=75)

XIII. MOBILE ENGINEERING AND INSTALLATION (E&I) PERSONNEL (GRP273, N=14)

XIV. FIXED ENGINEERING AND INSTALLATION (E&I) PERSONNEL (GRP154, N=40)

XV. RESIDENT TECHNICAL SCHOOL INSTRUCTORS (GRP243, N=77)

XVI. INSTRUCTORS AND MAINTENANCE PERSONNEL (GRP227, N=19)

XVII. JOB CONTROLLERS (GRP491, N=58)

XVIII. PLANS AND SCHEDULING PERSONNEL (GRP481, N=14)

XIX. SUPPLY PERSONNEL (GRP281, N=10)

XX. LIMITED EXPERIENCE QUALITY CONTROL PERSONNEL (GRP464, N=10)

The DAFSC 304X0 respondents forming these job types and clusters account for 78 percent of the 304X0 survey sample. The remaining 22 percent did not group with any of the clusters or job types described above. Some of the job titles held by the remaining 22 percent were: Wideband Communications Technician, Radio Relay Equipment Repairmen, Assistant Workcenter Supervisor, and PAVE SAFE/CCTV Technician. These personnel did not group with any cluster or job type because of either the unique job they perform or in the manner in which they perceive their job.

Overview

Generally, the career ladder is fairly heterogeneous, with a wide variety of radio maintenance, administrative, training, and supervisory type jobs being performed by 304X0 personnel. These jobs can roughly be divided into two general functional areas. The first functional area includes all those 304X0 personnel who are performing the various technical aspects of wideband communication equipment maintenance. This functional area includes eight major job groups and makes up a majority of the 304X0 personnel sampled. Some of the job groups found in this functional area include: Radio Relay Equipment Personnel, Communications Relay Center Personnel, Fixed E&I Personnel, and BISS Personnel. The primary differentiating factors for these job groups seems to be the types of equipment maintained or installed and the average number of tasks performed.

The second functional area includes 12 major job groups. Most of these incumbents spend a majority of their job time on various aspects of wideband communications training, supervision, or administrative functions rather than radio maintenance or installation duties. Since most of these respondents do not perform "hands-on" radio maintenance, the key differentiating factor for the personnel in this functional area appears to be the amount of time spent performing either supervisory, administrative, or training related tasks or some combination of these types of tasks. In addition, it is important to note that most of these major job groups are comprised of substantial percentages of DAFSC 304X0, 304X4 and 304X6 personnel.

The data analyzed for this section are reported in two different ways. First, a brief description (in narrative form) of each cluster and independent job type is presented below. This narrative description is designed to give an overview for each of the major job groups identified. Second, the data

analyzed in this section can also be found in a table format at the end of the section. These tables can be extremely useful for gathering more in-depth information or more importantly, for making comparisons between major job groups.

Basically, there are three types of tables at the end of this section which provide information about the clusters and independent job types identified. Tables 4 and 5 provide the relative percent time spent on each duty by the personnel in each of the major job groups, and can help to identify the maintenance, supervisory, and other functions that different groups concentrate on performing. For example, when comparing Communications Relay Center Personnel with Quality Control Personnel, Table 4 reveals that maintaining voice or teletype multiplexers are indicative of the former independent job type, while inspecting and evaluating duties are more indicative of Quality Control Personnel. Tables 6 and 7 provide selected background information, and can quickly reveal DAFSC distribution differences, equipment differences, and average number of tasks performed differences between major job groups. For example, Table 7 reveals that 95 percent of BISS Personnel maintain the AN/GSS-29, while only seven percent of Mobile E&I Personnel report maintaining the same equipment. Finally, Tables 8 and 9 reveal job satisfaction differences between personnel in major job groups, and can help to point out potential morale problem areas. For example, Table 9 reveals that Resident Technical School Instructors are among the most satisfied, with 76 percent finding their job interesting and 60 percent planning to reenlist, while Mobile E&I Personnel are among the least satisfied, with only 43 percent finding their job interesting and 21 percent planning to reenlist.

Also included in this report are two appendices concerning the Wideband Communications Equipment career ladder structure. Appendix A yields various duty, background, and job satisfaction information about the job types identified within each of the clusters found in the Wideband Communications Equipment career ladder, in addition to a brief narrative description for the job types identified. Appendix B lists common tasks performed by members for each of the clusters and independent job types identified in this section. The task tables found in Appendix B provide additional insight about the type of work performed by the personnel in a particular job, especially when used in conjunction with the data presented in this section.

I. RADIO RELAY EQUIPMENT PERSONNEL (GRP267). These 291 incumbents maintain fixed, mobile, and transportable wideband communications systems, some of which include tropospheric scatter and line-of-sight radios, as well as both digital and analog multiplex equipment. The primary piece of radio equipment maintained by these incumbents is the AN/TRC-97A, a line-of-sight or tropospheric scatter microwave radio set which consists of a self contained transportable shelter with various radio set configurations. Typical tasks performed by these respondents include:

adjust pilot tone detector components
align frequency division multiplexers
adjust frequency modulation (FM) detector or discrimination components
establish orderwire contact with distant terminals

Sixty-three percent of these incumbents hold the 5-skill level, and 58 percent are in their first enlistment. Sixty-four percent are stationed overseas, and only 70 percent perceive their job as interesting.

II. SENIOR RADIO REPAIRMEN (GRP663). This independent job type of 38 personnel is the only maintenance oriented major job group with substantial percentages of personnel from more than one specialty. While most of these incumbents hold DAFSC 304X0 (73 percent), 21 percent also hold DAFSC 304X4. The most distinguishing aspect of the job these respondents perform concerns the average number of tasks these incumbents perform (275), which is the highest average of all major job groups. Somewhat relatedly, these incumbents also perform the most difficult job, having a JDI of 25. Typical tasks performed by these incumbents include:

adjust high voltage power supply components
adjust audio amplifier components
align FM receivers
adjust sideband demodulator or balanced mixer components
adjust local oscillator components

These respondents maintain a large variety of radio equipment, (which is probably due to the fact that both the 304X0 and 304X4 specialties are represented in this major job group) some of which include the AN/TRC-97A, AN/FCC-17, AN/UCC-4, and AN/GSS-29. These incumbents are relatively senior (averaging 90 months TAFMS) and 78 percent find their job interesting.

III. COMMUNICATIONS RELAY CENTER PERSONNEL (GRP504). These 23 DAFSC 304X0 personnel are primarily working at Clark AB, Phillipines, and seem to maintain different types of multiplexer equipment, but spend very little time maintaining radio receivers or transmitters. The two most common types of multiplexers these incumbents maintain are the AN/FCC-17, which is a fixed single side band frequency division multiplexer capable of carrying up to 60 channels per wire, and the AN/UCC-4, which can be used for voice, digital, telegraph, facsimile, or graphic information over microwave radio relay and tropospheric scatter systems. Typical tasks performed by these incumbents include:

adjust frequency shift converter components
perform PMIs on teletype multiplexer associated interface equipment
isolate malfunctions in main distribution frames and associated wiring
isolate malfunctions in patch panels
adjust direct current (DC) power supply components

These incumbents are junior, with 91 percent holding the 3- or 5-skill level and 73 percent in their first enlistment. These respondents appear to be satisfied with their job, with 82 percent finding their job interesting and 57 percent planning to reenlist.

IV. JUNIOR WIDEBAND COMMUNICATIONS REPAIRMEN (GRP239). These 27 incumbents perform a job similar to Radio Relay Equipment Personnel described earlier. The primary radio system maintained by both groups is the AN/TRC-97A, and many of the tasks performed by the personnel in both major job groups are the same. The biggest differentiating factor between these two groups is the level of experience, with Radio Relay Equipment Personnel averaging almost four years more TAFMS than this major job group. Consequently, the number of tasks performed also differs, with Junior Wideband Communications Repairmen performing approximately one-fifth as many tasks as Radio Relay Equipment Personnel. Typical tasks performed by the incumbents in this job group include:

perform turn-on or turn-off procedures
make entries on maintenance forms
operate heavy duty vehicles, such as 1-1/2 ton trucks or 10 ton tractor-trailer combinations
read meters to determine equipment operation or signal quality
adjust automatic gain control (AGC) components

These personnel have low job satisfaction indicators, which may be due in part to the limited job they perform. Only 67 percent of these respondents find their job interesting and only 29 percent plan to reenlist.

V. JUNIOR RADIO RELAY EQUIPMENT PERSONNEL (GRP113). A majority of the 123 personnel hold either DAFSC 30430 or 30450, and seem to be assigned to tactical communications units or combat communications groups worldwide. These personnel are responsible for maintaining mobile wideband communication radios, rather than those associated with fixed units. These personnel also perform a more limited job than Radio Relay Equipment Personnel identified earlier, performing only one-third of the tasks (42 versus 124) and being two years more junior. Typical tasks performed by these respondents include:

perform corrosion control
adjust squelch circuit components
remove or replace electronic subassemblies using methods other than soldering
establish orderwire contact with distant terminals

A review of job satisfaction data reveals these incumbents are dissatisfied, with only 37 percent planning to reenlist and 56 percent finding their job interesting. These low job satisfaction indicators are probably due to the relatively limited job they perform and the large number of TDYs performed each year.

VI. QUALITY CONTROL PERSONNEL (GRP117). This is the first major job group with notable percentages of personnel from all three specialties represented. As the title indicates, the personnel in this cluster are responsible for performing the quality control functions at their assigned locations. Consequently, these incumbents spend very little job time performing radio maintenance or operations, but instead evaluate the various aspects of radio maintenance and operations. The tasks commonly performed by these incumbents are primarily evaluative in nature and include:

evaluate compliance with performance standards
evaluate capability of equipment
evaluate inspection reports or procedures
schedule inspections
prepare deficiency reports

These incumbents are fairly senior, averaging 170 months TAFMS and 73 percent hold DAFSC 30470, 30474, or 30476. A review of job satisfaction data for these incumbents reveals 72 percent perceive their job as interesting and 55 percent plan to reenlist.

VII. FIRSTLINE MAINTENANCE SUPERVISORS (GRP393). This cluster of 143 incumbents is made up of personnel from all three specialties. These personnel appear to be the immediate supervisors at a variety of radio maintenance facilities, and seem to divide their time between supervisory and maintenance functions. Most of these respondents are either senior 5-skill level or 7-skill level personnel who either do not have enough seniority to perform only supervisory functions, or due to manning problems at the site, still must perform maintenance duties to insure optimum mission capabilities. Many of the tasks these incumbents perform are training related, such as:

conduct OJT
maintain training records, charts or graphs
conduct proficiency training
establish performance standards for subordinates
adjust automatic gain control (AGC) components

These personnel supervise an average of four people, and perform a fairly difficult job (JDI equals 18.9). These respondents appear to be happy with their job, with 81 percent perceiving their training is utilized at least fairly well and 61 percent plan to reenlist.

VIII. NCOICs, JOB CONTROL. While a majority (73 percent) of the 41 respondents in this major job group hold DAFSC 304X4, a substantial percentage of personnel also hold DAFSC 304X0. These senior NCOs do not maintain, operate, or supervise the personnel who perform these functions on various types of radio equipment. Instead, these personnel are the supervisors of job control shops, whose purpose is to coordinate and schedule the various types of radio maintenance activities necessary to insure minimum mission degredation. These incumbents concentrate on either performing supervisory functions, compiling maintenance data, or monitoring maintenance activities, with tasks such as:

maintain status boards or charts
compile maintenance data
coordinate work activities with other units or agencies
coordinate cannibalization of equipment parts with appropriate agencies
prepare APRs

being performed by fairly high percentages of these respondents. A review of job satisfaction indicators reveals that these respondents are extremely dissatisfied with their job, with only 34 percent perceiving their training is being used at least fairly well and only 38 percent planning to reenlist.

IX. RADIO MAINTENANCE SUPERVISORS (GRP650). This fairly large cluster of 160 respondents also primarily hold DAFSC 304X4, but a notable percentage of DAFSC 304X6 and 304X0 personnel can also be found in this major job group. These incumbents are the middle level supervisors and managers at various ground radio, radio relay, and satellite communications sites located worldwide. Since these incumbents are middle level supervisors, they spend most of their job time performing supervisory functions and very little time on radio maintenance or operations. Typical tasks performed by these senior NCOs include:

interpret policies, procedures, or directives for subordinates
prepare APRs
determine requirements for space, personnel, equipment or supplies
schedule leaves or passes
plan work assignments

As stated earlier, the personnel performing this job are senior, averaging 208 months TAFMS and having an average paygrade of E-6 to E-7. These respondents have somewhat above average job satisfaction indicators, with 80 percent finding their job interesting and 86 percent perceiving their talents are utilized at least fairly well.

X. RESIDENT TRAINING SUPERVISORS (GRP711). The ten personnel in this independent job type are among the most senior of all major job groups, averaging 219 months TAFMS and having an average paygrade of E-7. These incumbents are the course supervisors of many of the various 304X0, 304X4, and 304X6 courses taught at the Keesler Technical Training Center, and in many cases are also conducting resident course classroom training. Typical tasks performed by these incumbents include:

evaluate training methods or techniques
assign resident course instructors
conduct resident course classroom training
evaluate progress of students
schedule leaves or passes

As expected, very few of these incumbents report maintaining any type of radio equipment, but instead supervise the personnel who instruct resident technical school students on the techniques and principles used to maintain various types of radio equipment. Job satisfaction data reveals these incumbents are satisfied with their job, with 80 percent finding their job interesting and 40 percent planning to reenlist.

XI. TOOL CRIB SUPERVISORS (GRP442). Seventy-five percent of the 12 personnel in this independent job type are assigned overseas. These incumbents do not maintain radio equipment, but instead supervise the tool and supply functions at various radio maintenance facilities. Typical tasks performed by these incumbents include:

prepare requisitions for parts, tools, or supplies
direct supply functions or tool crib operations
maintain tool cribs
research supply catalogs
maintain historical records

Forty-one percent of these incumbents hold DAFSC 304X0, 34 percent hold DAFSC 304X4, and 17 percent hold DAFSC 304X6. These respondents are fairly senior, averaging 187 months TAFMS and having an average paygrade of E-6. A review of job satisfaction data reveals that while a somewhat lower than average percentage of these incumbents find their job interesting (66 percent), a high percentage of personnel plan to reenlist (75 percent).

XII. BASE INSTALLATION SECURITY SYSTEMS (BISS) PERSONNEL (GRP232). These 75 personnel maintain the sensors, relay equipment, and alarm equipment used to protect mission-critical/high value resources such as nuclear/conventional weapons storage sites, strategic/ tactical alert aircraft areas, special mission aircraft parking ramps, etc. These systems are somewhat diversified, with some BISS sensors utilizing closed circuit TVs, sound, radars, or still others using infrared sensors. Typical tasks performed by these incumbents include:

isolate malfunctions in perimeter security systems
adjust security system or sensor system components
isolate malfunctions in security system annunciators
isolate malfunctions in security system digital data receivers
isolate malfunctions in security system seismic sensor systems

Ninety-five percent of these personnel maintain the AN/GSS-29, which is used to provide indoor protective surveillance of various restricted areas. Most of these personnel are stationed in CONUS (73 percent), and most hold the 5-skill level (57 percent). Job satisfaction data reveals that 78 percent find their job interesting and 53 percent perceive their training is used at least fairly well.

XIII. MOBILE ENGINEERING AND INSTALLATION (E&I) PERSONNEL (GRP273). Almost 80 percent of the 14 incumbents in this independent job type hold DAFSC 304X0, with the remainder holding DAFSC 304X4. Being E &I personnel, these incumbents do not perform routine maintenance functions, but instead concentrate on the installation and removal of various types of radio equipment. This major job group differs from the other E&I major job group in that these personnel concentrate on installing and removing mobile or transportable radio systems, rather than the generally larger fixed radio systems. Representative tasks performed by these respondents include:

clear mobility work areas
operate heavy duty vehicles, such as 1-1/2 ton trucks or 10 ton tractor-trailer combinations
install or remove mobile communications equipment
perform corrosion control
emplace or anchor equipment vans or shelters

These incumbents are fairly junior, averaging only 36 months TAFMS and 93 percent are still in their first enlistment. A review of job satisfaction data reveals these incumbents are among the most dissatisfied of all major job groups, with only 43 percent finding their job interesting and 21 percent planning to reenlist. These low job satisfaction indicators may be partly due to the limited job these incumbents perform, with these personnel performing a fairly low average number of tasks (22), and also performing a relatively simple job.

XIV. FIXED ENGINEERING AND INSTALLATION (E&I) PERSONNEL (GRP154). The 40 personnel in this independent job type are approximately equally divided between holding DAFSC 304X0 or 304X4. These incumbents do not maintain radio equipment, but instead are responsible for the installation and removal of fixed radio systems. Typical tasks performed by these personnel include:

install or remove fixed communications equipment
install or remove mounting hardware
assemble systems or subsystems from component parts
install or remove communications or control towers
lace cable assemblies or internal wiring

Like the Mobile E&I Personnel described earlier, these incumbents are also junior, averaging 36 months TAFMS and 80 percent still in their first enlistment. Unfortunately, the job satisfaction data for these personnel also closely parallels the previous major job group, with only 27 percent perceiving their job using their training at least fairly well and only 39 percent plan to reenlist.

XV. RESIDENT TECHNICAL SCHOOL INSTRUCTORS (GRP243). This independent job type of 77 personnel consists of substantial percentages of personnel from all three specialties. These incumbents are primarily stationed at Keesler AFB MS, and are responsible for conducting the various 304X0, 304X4, and 304X6 resident courses located there. Almost all of the tasks these incumbents perform are training related, and include:

score tests
conduct resident course classroom training
counsel trainees on training progress
conduct remedial training
procure training aids, space, or equipment

Twenty-two percent of these personnel are in their first enlistment. In addition, an examination of job satisfaction data reveals these incumbents are fairly satisfied, with 76 percent finding their job interesting and 60 percent planning to reenlist.

XVI. INSTRUCTORS AND MAINTENANCE PERSONNEL (GRP227). This independent job type of 19 personnel is primarily made up of 304X6 instructors, but notable percentages of DAFSC 304X0 and 304X4 personnel are also in this major job group. These incumbents perform a job very similar to Resident Technical School Instructors described earlier, in that both major job groups are responsible for conducting resident course classroom training. These incumbents differ from the previous major job group in that they perform approximately three times more tasks, most of which are maintenance oriented. Representative tasks performed by these respondents include:

conduct remedial training
evaluate training methods or techniques
read meters to determine equipment operation or signal quality
conduct resident course classroom training
configure patch panels for analog operations

These incumbents are fairly senior, averaging 129 months TAFMS and only 21 percent are in their first enlistment. Overall, this is one of the most satisfied of all major job groups, with 95 percent of these personnel perceiving their job uses their talents at least fairly well and 89 percent perceiving their training is being used at least fairly well.

XVII. JOB CONTROLLERS (GRP491). This independent job type of 58 personnel performs the lowest average number of tasks of all major job groups (12), most of which involve administrative functions. These incumbents perform the job control functions at various radio sites throughout the world. This job primarily involves monitoring the status of radio equipment and coordinating with the proper maintenance personnel to fix any equipment problems that may occur. Typical tasks performed by these respondents include:

maintain status boards and charts
compile maintenance data
prepare status reports
determine work priorities
coordinate work activities with other units or agencies

Fifty percent of these personnel hold DAFSC 304X4, and 37 percent hold DAFSC 304X0. A review of job satisfaction data reveals these incumbents are dissatisfied with their job, with only 21 percent perceiving their training is utilized at least fairly well, and only 48 percent perceive their talents are utilized at least fairly well.

XVIII. PLANS AND SCHEDULING PERSONNEL (GRP481). This independent job type of 14 personnel performs a job somewhat similar to Job Controllers described earlier, but seem to be more involved with scheduling the usage of and periodic inspections of radio equipment, rather than with the monitoring of radio equipment performance and the consequential scheduling of maintenance activities. Typical tasks performed by these incumbents include:

schedule inspections
prepare maintenance activity schedules
prepare maintenance schedules
schedule use of equipment
establish organizational policies, office instructions (OI), or standard operating procedures (SOP)

Sixty-four percent of these incumbents hold DAFSC 304X4, and 43 percent are stationed overseas. These incumbents are senior, averaging 134 months TAFMS and none of these personnel are in their first enlistment. These personnel have average job satisfaction indicators, with 72 percent finding their job interesting and 43 percent plan to reenlist.

XIX. SUPPLY PERSONNEL (GRP281). The ten personnel in this independent job type are responsible for maintaining the availability of spare parts and for the scheduling of various types of equipment for Precision Measurement Equipment Laboratory (PMEL) inspections. These incumbents do not report maintaining radio equipment, but instead spend almost half of their job time performing supply functions. Typical tasks performed by a majority of these incumbents include:

maintain benchstocks
coordinate local purchases with maintenance offices or base supply
coordinate equipment calibration with Precision Measurement Equipment Laboratories (PMEL)
maintain equipment accountability records
direct supply functions or tool crib operations

Sixty percent of these incumbents hold DAFSC 30454, and 30 percent hold DAFSC 304X0. These incumbents have mixed job satisfaction indicators, with only 40 percent finding their job interesting, but 90 percent perceive their talents are being utilized at least fairly well or better.

XX. LIMITED EXPERIENCE QUALITY CONTROL PERSONNEL (GRP464). These personnel perform a quality control job, but only perform about half as many tasks (15 versus 38) as Quality Control Personnel described earlier. This lower average number of tasks performed is not due to the lack of these incumbent's radio maintenance experience, but instead is due to the fact that they have just assumed a quality control job. The tasks most commonly performed by these senior NCOs are all quality control related, such as:

maintain technical order (TO) files
prepare activity reports
schedule inspections
prepare evaluation reports
evaluate compliance with performance standards

Seventy percent of these personnel hold DAFSC 304X4, with the remainder holding DAFSC 304X0. A majority of these incumbents are stationed overseas (60 percent), and these personnel have an average paygrade of E-6. While only 50 percent of these respondents find their job interesting, 80 percent plan to reenlist.

Summary

Basically, the jobs performed by 304X0 personnel can be divided into two functional groups. Eight major job groups were identified in the maintenance and installation functional area. The personnel in this functional area constitute a majority of the 304X0 personnel sampled, and seem to be responsible for the various technical aspects of wideband communications equipment maintenance or installation. The second functional area involves the nontechnical aspects of wideband communications equipment, such as supervision, administration, or training. The remaining 12 major job groups fall into this category, with the personnel in these groups spending substantial percentages of job time on performing supervisory, administrative, or training type duties.

A review of job satisfaction indicators reveals that this data varies depending upon the job performed. Those personnel performing a training oriented job (such as Resident Technical School Instructors and Instructors and Maintenance Personnel) appear to be the most satisfied of all major job groups. However, those personnel performing a job control or E & I type job (such as Job Controllers or Mobile E & I Personnel) are among the least satisfied. Managers should be aware of these potential morale problem areas and try to find ways to improve them.

TABLE 4

RELATIVE PERCENT TIME SPENT ON DUTIES BY MAJOR JOB GROUPS

DUTIES	RADIO RELAY EQUIP PERS (GRP267, N=291)	SR RADIO REP (GRP663, N=36)	COMM RELAY CENTER PERS (GRP504, N=23)	JR WIDE BAND COMM REP (GRP239, N=27)	JR RADIO RELAY EQUIP PERS (GRP113, N=123)	QUALITY CONTROL PERS (GRP117, N=121)	FIRST-LINE MAINT SUPVs (GRP393, N=148)	NCOICs JOB CONTROL (GRP564, N=41)	RADIO MAINT SUPVs (GRP650, N=160)	RES TRAINING SUPVs (GRP711, N=10)
ORGANIZING AND PLANNING	2	2	3	*	1	16	9	23	21	17
DIRECTING AND IMPLEMENTING	2	2	1	3	2	12	10	23	20	21
INSPECTING AND EVALUATING	1	2	*	1	*	31	7	12	19	15
TRAINING	3	2	3	*	1	7	9	17	13	37
PREPARING AND MAINTAINING FORMS, RECORDS, AND REPORTS	2	1	3	4	4	18	6	19	9	4
PERFORMING SUPPLY FUNCTIONS	2	2	2	*	2	5	6	3	7	3
PERFORMING EQUIPMENT OPERATION FUNCTIONS	8	4	8	18	18	2	5	*	1	*
PERFORMING SATELLITE OPERATION FUNCTIONS	*	*	*	*	*	*	*	*	*	*
PERFORMING GENERAL MAINTENANCE FUNCTIONS	10	9	15	25	15	3	9	*	3	*
MAINTAINING ANTENNA SYSTEMS	2	3	*	*	2	*	1	*	*	*
MAINTAINING RECEIVERS TO INCLUDE RECEIVE PORTION OF TRANSCEIVERS	18	15	5	8	14	*	9	*	1	*
MAINTAINING TRANSMITTERS TO INCLUDE TRANSMIT PORTION OF TRANSCEIVERS	12	15	2	3	7	*	7	*	1	*
MAINTAINING VOICE FREQUENCY MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	11	8	10	5	9	*	3	*	*	*
MAINTAINING TELETYPE MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	4	4	24	1	2	*	*	*	*	*
MAINTAINING COMMUNICATION OR CONTROL CONSOLES	*	*	*	*	*	*	2	*	*	*
MAINTAINING AUDIO OR FACSIMILE EQUIPMENT	*	*	*	*	*	*	*	*	*	*
MAINTAINING SCOPE CONTROL OR UNIVERSAL RADIO GROUP EQUIPMENT	*	*	*	*	*	*	*	*	*	*
MAINTAINING MODEMS	*	1	2	*	*	*	*	*	*	*
MAINTAINING TRACKING SYSTEMS	*	*	*	*	*	*	*	*	*	*
MAINTAINING BASE AND INSTALLATION SECURITY SYSTEMS	*	3	*	*	*	*	*	*	*	*
MAINTAINING COMMON OR MISCELLANEOUS SUBASSEMBLIES	13	20	18	4	8	*	9	*	*	*
PERFORMING SITE INSTALLATION OR MOVING FUNCTIONS	2	3	1	2	2	1	1	*	*	*
PERFORMING SUPPORT FUNCTIONS	5	3	2	22	11	2	4	2	2	*

*DENOTES LESS THAN ONE PERCENT

TABLE 5

RELATIVE PERCENT TIME SPENT ON DUTIES BY MAJOR JOB GROUPS

DUTIES	TOOL CRIB SUPVs (GRP442, N=12)	BISS PERS (GRP232, N=75)	MOBILE E&I PERS (GRP273, N=14)	FIXED E&I PERS (GRP154, N=40)	RES TECH SCHOOL INST (GRP243, N=77)	INST AND MAINT PERS (GRP227, N=19)	JOB CONTROL (GRP491, N=58)	PLANS AND SCHED (GRP481, N=14)	SUPPLY PERS (GRP281, N=10)	LIMITED EXP QC PERS (GRP464, N=10)
ORGANIZING AND PLANNING	13	4	*	*	3	5	28	33	8	10
DIRECTING AND IMPLEMENTING	18	4	2	2	9	9	16	18	16	8
INSPECTING AND EVALUATING	10	2	*	*	3	6	5	6	2	17
TRAINING	7	4	*	*	69	35	5	6	4	7
PREPARING AND MAINTAINING FORMS, RECORDS, AND REPORTS	12	5	*	*	2	3	38	30	9	49
PERFORMING SUPPLY FUNCTIONS	18	5	1	*	1	3	3	4	48	*
PERFORMING EQUIPMENT OPERATION FUNCTIONS	3	3	5	*	*	11	*	*	3	*
PERFORMING SATELLITE OPERATION FUNCTIONS	*	*	*	*	*	*	*	*	*	*
PERFORMING GENERAL MAINTENANCE FUNCTIONS	8	15	11	38	2	7	*	*	4	*
MAINTAINING ANTENNA SYSTEMS	*	*	*	*	*	*	*	*	*	*
MAINTAINING RECEIVERS TO INCLUDE RECEIVE PORTION OF TRANSCEIVERS	*	*	3	2	1	6	*	*	2	*
MAINTAINING TRANSMITTERS TO INCLUDE TRANSMIT PORTION OF TRANSCEIVERS	*	*	2	*	*	3	*	*	*	*
MAINTAINING VOICE FREQUENCY MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	*	*	4	*	2	4	*	*	*	*
MAINTAINING TELETYPE MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	*	*	*	*	1	3	*	*	*	*
MAINTAINING COMMUNICATION OR CONTROL CONSOLES	*	*	*	*	*	*	*	*	*	*
MAINTAINING AUDIO OR FACSIMILE EQUIPMENT	1	*	*	*	*	*	*	*	*	*
MAINTAINING SCOPE CONTROL OR UNIVERSAL RADIO GROUP EQUIPMENT	*	*	*	*	*	*	*	*	*	*
MAINTAINING MODEMS	*	*	*	*	*	*	*	*	*	*
MAINTAINING TRACKING SYSTEMS	*	*	*	*	*	*	*	*	*	*
MAINTAINING BASE AND INSTALLATION SECURITY SYSTEMS	*	42	*	*	*	*	*	*	*	*
MAINTAINING COMMON OR MISCELLANEOUS SUBASSEMBLIES	1	5	2	*	*	3	*	*	*	*
PERFORMING SITE INSTALLATION OR MOVING FUNCTIONS	3	*	10	35	*	*	*	*	*	*
PERFORMING SUPPORT FUNCTIONS	6	8	55	14	*	1	4	2	2	7

*DENOTES LESS THAN ONE PERCENT

TABLE 6

BACKGROUND INFORMATION FOR MAJOR JOB GROUPS

	RADIO RELAY EQUIP PERS	SR RADIO REP	COMM RELAY CENTER PERS	JR WIDE BAND COMM REP	JR RADIO RELAY EQUIP PERS	QUALITY CONTROL PERS	FIRST-LINE MAINT SUPVs	NCOICs JOB CONTROL	RADIO MAINT SUPVs	RES TNG SUPVs
AVERAGE NUMBER OF TASKS PERFORMED:	124	275	88	27	42	38	164	40	83	50
JOB DIFFICULTY INDEX:	16.7	25.0	13.3	3.8	9.3	10.8	18.9	10.3	14.0	12.2
AVERAGE PAYGRADE:	E-4	E-4/E-5	E-3/E-4	E-3	E-3/E-4	E-6	E-5/E-6	E-6	E-6/E-7	E-7
PERCENT LOCATED OVERSEAS:	64%	32%	70%	19%	59%	38%	58%	49%	48%	-
DAFSC										
30430	18%	13%	39%	63%	34%	-	-	-	-	-
30450	63%	31%	52%	11%	49%	7%	18%	5%	-	-
30470	16%	29%	9%	-	2%	20%	26%	20%	22%	20%
304X4	1%	21%	-	19%	3%	65%	51%	73%	64%	50%
304X6	-	6%	-	7%	9%	6%	5%	2%	10%	20%
OTHER	2%	-	-	-	3%	2%	-	-	4%	10%
AVERAGE NUMBER OF PERSONNEL SUPERVISED:	1	1	-	-	-	1	4	3	6	10
AVERAGE MONTHS TAFMS:	66	90	51	24	41	170	149	181	208	219
PERCENT IN FIRST ENLISTMENT:	58%	50%	73%	96%	75%	5%	5%	5%	-	-
PERCENT MAINTAINING THE FOLLOWING EQUIPMENT:										
AN/FRC-127	10%	24%	-	-	9%	-	7%	-	2%	
AN/FRC-155/165 FAMILY	16%	32%	35%	4%	6%	-	5%	-	2%	
AN/TRC-97A	47%	44%	-	52%	29%	3%	4%	-	4%	
AN/FRC-39 FAMILY	57%	12%	-	-	-	3%	-	-	-	
AN/FRC-96/97	13%	21%	-	4%	7%	2%	5%	-	2%	
AN/GSS-20	3%	13%	-	-	-	-	-	-	3%	

TABLE 6 (CONT'D)

BACKGROUND INFORMATION FOR MAJOR JOB GROUPS

	RADIO RELAY EQUIP PERS	SR RADIO REP	COMM RELAY CENTER PERS	JR WIDE BAND COMM REP	JR RADIO RELAY EQUIP PERS	QUALITY CONTROL PERS	FIRST-LINE MAINT SUPVs	NCOICs JOB CONTROL	RADIO MAINT SUPVs	RES TNG SUPVs
AN/GSS-29	4%	18%	-	4%	2%	-	3%	-	3%	-
AN/FCC-17 FAMILY	8%	21%	52%	-	3%	-	7%	-	3%	-
AN/FCC-32	14%	21%	-	-	11%	-	7%	-	4%	-
AN/FCC-78 (DIGITAL)	-	13%	26%	7%	3%	-	2%	-	6%	-
AN/TCC-7	8%	13%	4%	-	-	-	3%	-	-	-
AN/UCC-4	31%	42%	35%	11%	21%	-	8%	-	5%	10%
AN/GXS-2	1%	5%	-	-	-	-	-	-	-	-
PERCENT WORKING IN THE FOLLOWING AREAS:										
ENGINEERING AND INSTALLATION UNIT	2%	8%	-	-	6%	6%	-	-	4%	-
JOB CONTROL	1%	-	4%	4%	2%	7%	2%	85%	6%	-
MICROWAVE RADIO RELAY SITE (MOBILE)	32%	10%	4%	37%	10%	2%	6%	2%	3%	-
MICROWAVE RADIO RELAY SITE (FIXED)	40%	29%	48%	7%	40%	5%	25%	2%	11%	-
RADIO RELAY INTRUSION DETECTION SET	2%	-	-	-	-	-	-	-	-	-
TRAINING UNIT (TECH SCHOOL)	-	3%	-	-	-	2%	1%	-	-	60%
TROPO RADIO RELAY SITE (MOBILE)	27%	13%	-	-	-	3%	3%	2%	2%	-

TABLE 7

BACKGROUND INFORMATION FOR MAJOR JOB GROUPS

	TOOL CRIB SUPVs	BISS PERS	MOBILE E&I PERS	FIXED E&I PERS	RES TECH SCHOOL INST	INST AND SCHOOL PERS	JOB CONTROL	PLANS & SCHED PERS	SUPPLY PERS	LIMITED EXP QC PERS
AVERAGE NUMBER OF TASKS PERFORMED:	56	66	22	17	18	63	12	21	22	15
JOB DIFFICULTY INDEX:	9.3	11.5	1.0	2.9	7.6	12.3	5.5	7.2	4.4	6.1
AVERAGE PAYGRADE:	E-6	E-4	E-3	E-3/E-4	E-5	E-5	E-4	E-5	E-4/E-5	E-6
PERCENT LOCATED OVERSEAS:	75%	27%	36%	22%	3%	11%	33%	43%	20%	60%
DAFSC										
30430	-	24%	36%	18%	3%	-	2%	7%	-	-
30450	8%	57%	36%	32%	16%	26%	33%	7%	20%	20%
30470	33%	16%	7%	3%	13%	5%	2%	14%	10%	10%
304X4	34%	1%	21%	47%	52%	21%	50%	64%	60%	70%
304X6	17%	-	-	-	16%	48%	8%	7%	10%	-
OTHER	8%	2%	-	-	-	-	5%	1%	-	-
AVERAGE NUMBER OF PERSONNEL SUPERVISED:	3	1	-	-	-	2	-	1	1	-
AVERAGE MONTHS TAFMS:	187	55	36	36	120	129	76	134	101	164
PERCENT IN FIRST ENLISTMENT:	8%	62%	93%	80%	22%	21%	37%	-	30%	10%
PERCENT MAINTAINING THE FOLLOWING EQUIPMENT:										
AN/FRC-127	-	-	-	-	-	-	-	-	-	-
AN/FRC-155/165 FAMILY	-	-	-	37%	-	11%	-	-	-	-
AN/TRC-97A	25%	-	1%	-	-	5%	-	-	10%	-
AN/FRC-39 FAMILY	-	-	-	-	1%	-	-	-	-	-
AN/FRC-96/97	-	-	-	-	-	-	-	-	-	-
AN/GSS-20	-	19%	7%	-	-	-	-	-	-	-

TABLE 7 (CONT'D)

BACKGROUND INFORMATION FOR MAJOR JOB GROUPS

	TOOL CRIB SUPVs	BISS PERS	MOBILE E&I PERS	FIXED E&I PERS	RES TECH SCHOOL INST	INST AND SCHOOL PERS	JOB CONTROL	PLANS & SCHED PERS	SUPPLY PERS	LIMITED EXP QC PERS
AN/GSS-29	-	95%	7%	-	-	-	-	-	-	-
AN/FCC-17 FAMILY	-	3%	-	-	-	11%	-	-	-	-
AN/FCC-32	-	-	-	-	-	-	-	-	-	-
AN/FCC-98 (DIGITAL)	-	-	-	3%	1%	16%	-	-	-	-
AN/TCC-7	-	-	-	-	-	-	-	-	-	-
AN/UCC-4	8%	-	14%	-	4%	21%	2%	-	20%	-
AN/GXS-2	-	61%	7%	-	-	-	-	-	-	-
PERCENT WORKING IN THE FOLLOWING AREAS:										
ENGINEERING AND INSTALLATION UNIT	-	1%	7%	3%	-	2%	-	-	-	-
JOB CONTROL	-	1%	-	-	3%	5%	83%	27%	-	10%
MICROWAVE RADIO RELAY SITE (MOBILE)	17%	1%	36%	-	4%	5%	-	-	10%	-
MICROWAVE RADIO RELAY SITE (FIXED)	33%	5%	-	-	4%	5%	3%	-	20%	-
RADIO RELAY INTRUSION DETECTION SITE	-	41%	7%	-	-	-	-	6%	-	-
TRAINING UNIT (TECH SCHOOL)	-	-	-	-	70%	42%	-	8%	-	-
TROPO RADIO RELAY SITE (MOBILE)	8%	4%	-	-	2%	-	2%	-	-	-

TABLE 8

JOB SATISFACTION AND RELATED DATA FOR MAJOR JOB GROUPS
(PERCENT MEMBERS PERFORMING)*

	RADIO RELAY EQUIP PERS	SR RADIO REP	COMM RELAY CENTER PERS	JR WIDE BAND COMM REP	JR RADIO RELAY EQUIP PERS	QC PERS	FIRST-LINE MAINT SUPVs	NCOICs JOB CONTROL	RADIO MAINT SUPVs	RES TRAINING SUPVs
I FIND MY JOB:										
DULL	14	11	9	22	20	11	12	27	8	-
SO-SO	15	11	9	11	23	14	9	17	12	20
INTERESTING	70	78	82	67	56	72	78	56	80	80
MY JOB UTILIZES MY TALENTS:										
NOT AT ALL TO VERY LITTLE	19	26	26	41	33	16	18	37	14	20
FAIRLY WELL OR BETTER	80	74	79	54	67	82	81	63	86	80
MY JOB UTILIZES MY TRAINING:										
NOT AT ALL TO VERY LITTLE	16	21	13	30	28	29	18	66	22	20
FAIRLY WELL OR BETTER	83	79	87	70	72	70	81	34	78	70
I PLAN TO REENLIST:										
NO, PLANNING TO RETIRE	2	8	-	4	2	23	16	27	36	30
NO OR PROBABLY NO	53	50	43	63	60	22	22	35	16	20
YES OR PROBABLY YES	45	39	57	29	37	55	61	38	47	40

*NOTE: COLUMNS MAY NOT ADD TO 100 PERCENT DUE TO "NO RESPONSE"

TABLE 9

JOB SATISFACTION AND RELATED DATA FOR MAJOR JOB GROUPS
(PERCENT MEMBERS RESPONDING)*

I FIND MY JOB:	TOOL CRIB SUPVs	BISS PERS	MOBILE E&I PERS	FIXED E&I PERS	RES TECH SCHOOL INST	INST AND SCHOOL PERS	JOB CONTROL	PLANS AND SCHED	SUPPLY PERS	LIMITED EX QC PERS
DULL	17	9	36	13	13	5	24	14	10	20
SO-SO	17	13	21	33	8	16	17	14	50	30
INTERESTING	66	78	43	51	76	79	59	72	40	50
MY JOB UTILIZES MY TALENTS:										
NOT AT ALL TO VERY LITTLE	25	25	57	48	20	5	52	21	10	40
FAIRLY WELL OR BETTER	75	75	43	52	79	95	48	79	90	60
MY JOB UTILIZES MY TRAINING:										
NOT AT ALL TO VERY LITTLE	33	47	57	73	21	11	79	57	40	40
FAIRLY WELL OR BETTER	67	53	43	27	76	89	21	43	60	60
I PLAN TO REENLIST:										
NO, PLANNING TO RETIRE	25	1	7	3	10	11	3	7	10	-
NO OR PROBABLY NO	-	55	72	50	29	37	52	50	50	20
YES OR PROBABLY YES	75	44	21	39	60	52	45	43	40	80

*NOTE: COLUMNS MAY NOT ADD TO 100 PERCENT DUE TO "NO RESPONSE"

ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups forms a part of each occupational analysis. This analysis should be used to help identify differences and similarities among skill level groups in the 304X0 specialty. By noting the similarities and differences between skill level groups, this analysis can be helpful when examining various career ladder documents, such as AFR 39-1, Specialty Descriptions and the 304X0 Specialty Training Standard.

The DAFSC analysis of the 304X0 specialty will discuss the duties and tasks common to the skill level groups, as well as highlighting the tasks which best differentiate the 3-, 5-, and 7-skill level incumbents.

Skill Level Comparisons

As in most communications-electronics career ladders, the job performed by 3-skill level respondents is primarily maintenance oriented. These personnel spend approximately 90 percent of their job time performing various maintenance duties, with performing general maintenance functions making up the biggest percentage of job time (16 percent) (see Table 10). This is realistic with the career ladder structure, since most 3-skill level personnel fall into maintenance oriented jobs, such as Radio Relay Equipment Personnel, Junior Wideband Communications Repairmen, or Junior Radio Relay Repairmen (see Table 11). Table 12 lists the most common tasks performed by DAFSC 30430 respondents. These tasks primarily involve routine radio maintenance, such as performing turn-on or turn-off procedures, performing PMIs on FM receivers, constructing shop cables or test plugs, or adjusting automatic gain control (AGC) components.

At the 5-skill level, Table 10 reveals these incumbents still perform primarily a maintenance oriented job, but in addition seem to take on more of a supervisory role (spending approximately 20 percent of their job time performing supervisory duties). However, an examination of representative tasks performed by these incumbents (Table 13) reveals that general radio maintenance tasks, such as reading meters to determine signal quality, adjusting pilot tone detector components, aligning frequency division multiplexers, or performing corrosion control are performed by high percentages of DAFSC 30450 personnel. In addition, it is interesting to note the similarity between the most common tasks performed by 3- and 5-skill level personnel, with similar percentages of 3- and 5-skill level personnel performing many of the same tasks.

In a comparison of the tasks and duties performed by 3- and 5-skill level personnel, Table 10 reveals that both skill level groups spend a majority of their job time performing technical maintenance related duties; however, DAFSC 30450 personnel spend approximately three times more job time performing supervisory related functions than 3-skill level personnel. This same trend is reflected in Table 14, with the supervisory tasks performed by higher percentages of DAFSC 30450 personnel being the biggest differentiating factor between the two groups. Examples of some of these differentiating tasks include: conducting OJT, preparing APRs, supervising DAFSC 30430 or 30450 personnel, and determining work priorities.

An examination of the duties and tasks performed by 7-skill level personnel tends to indicate that these personnel are the firstline supervisors at many radio maintenance facilities, and spend approximately half of their job time performing supervisory duties, with the remainder spent on maintenance or administrative functions (Table 10). An examination of the most common tasks performed by these incumbents reveals that supervisory tasks, such as preparing APRs, coordinating work activities with other units or agencies, evaluating compliance with performance standards, or supervising DAFSC 30450 personnel are performed by fairly high percentages of DAFSC 30470 personnel. Very few, if any, maintenance oriented tasks are performed by a majority of DAFSC 30470 personnel (Table 15).

When comparing DAFSC 30450 and 30470 personnel, Table 10 reveals 7-skill level incumbents spend substantially more job time performing supervisory duties and somewhat less time on maintenance duties than DAFSC 30450 personnel. This trend is also reflected in Table 11, with high numbers of 7-skill level personnel in supervisory jobs (such as Radio Maintenance Supervisors or Firstline Maintenance Supervisors) while a majority of 5-skill level personnel are performing maintenance jobs (such as Radio Relay Equipment Repairmen). Finally, this trend can also be found in Table 16, with maintenance related tasks, such as performing PMIs on FM receivers or splicing wiring or cables being among the tasks which best differentiate DAFSC 30450 personnel, and supervisory tasks, such as planning layout of facilities or evaluating safety programs, being performed by substantially higher percentages of 7-skill level personnel.

Summary

Generally, the increasing amount of time spent performing supervisory functions and the decreasing amount of time spent performing radio maintenance seems to be indicative of DAFSC 304X0 personnel as skill levels increase. Three-skill level personnel are primarily technicians who spend almost 90 percent of their job time performing radio maintenance and perform many of same tasks as 5-skill level personnel. However, DAFSC 30450 personnel spend approximately 20 percent of their job time performing supervisory functions, which is approximately three times greater than 3-skill level personnel. Seven-skill level personnel roughly divide their job time equally between supervisory and maintenance functions, and appear to be the firstline supervisors at many radio maintenance facilities.

TABLE 10

RELATIVE PERCENT TIME SPENT ON DUTIES BY
304X0 SKILL LEVEL GROUPS

DUTIES	3-SKILL LEVEL PERSONNEL (N=225)	5-SKILL LEVEL PERSONNEL (N=501)	7-SKILL LEVEL PERSONNEL (N=270)
ORGANIZING AND PLANNING	2	5	12
DIRECTING AND IMPLEMENTING	2	4	13
INSPECTING AND EVALUATING	*	2	12
TRAINING	2	6	11
PREPARING AND MAINTAINING FORMS, RECORDS, AND REPORTS	4	6	9
PERFORMING SUPPLY FUNCTIONS	3	3	4
PERFORMING EQUIPMENT OPERATION FUNCTIONS	11	9	5
PERFORMING SATELLITE OPERATION FUNCTIONS	*	*	*
PERFORMING GENERAL MAINTENANCE FUNCTIONS	16	11	6
MAINTAINING ANTENNA SYSTEMS	1	1	*
MAINTAINING RECEIVERS TO INCLUDE RECEIVE PORTION OF TRANSCEIVERS	10	10	7
MAINTAINING TRANSMITTERS TO INCLUDE TRANSMIT PORTION OF TRANSCEIVERS	6	7	4
MAINTAINING VOICE FREQUENCY MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	7	7	4
MAINTAINING TELETYPE MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	4	3	2
MAINTAINING COMMUNICATION OR CONTROL CONSOLES	*	*	*
MAINTAINING AUDIO OR FACSIMILE EQUIPMENT	*	*	*
MAINTAINING SCOPE CONTROL OR UNIVERSAL RADIO GROUP EQUIPMENT	*	*	*
MAINTAINING MODEMS	*	*	*
MAINTAINING TRACKING SYSTEMS	*	*	*
MAINTAINING BASE AND INSTALLATION SECURITY SYSTEMS	5	4	2
MAINTAINING COMMON OR MISCELLANEOUS SUBASSEMBLIES	9	9	5
PERFORMING SITE INSTALLATION OR MOVING FUNCTIONS	3	3	1
PERFORMING SUPPORT FUNCTIONS	10	7	3

*DENOTES LESS THAN ONE PERCENT

TABLE 11

DAFSC DISTRIBUTION FOR MAJOR JOB GROUPS

MAJOR JOB GROUPS	DAFSC 30430	30450	30470	OTHER
RADIO RELAY EQUIPMENT PERSONNEL	52	183	47	9
SENIOR RADIO REPAIRMEN	5	12	11	10
COMMUNICATIONS RELAY CENTER PERSONNEL	7	12	2	-
JUNIOR WIDEBAND COMMUNICATIONS REPAIRMEN	17	3	-	7
JUNIOR RADIO RELAY EQUIPMENT REPAIRMEN	42	60	3	18
QUALITY CONTROL PERSONNEL	-	9	24	88
FIRSTLINE MAINTENANCE SUPERVISORS	-	27	39	82
NCOICs, JOB CONTROL	-	2	8	31
RADIO MAINTENANCE SUPERVISORS	-	-	35	125
RESIDENT TRAINING SUPERVISORS	-	-	2	8
TOOL CRIB SUPERVISORS	-	1	4	7
BISS PERSONNEL	18	42	12	2
MOBILE E & I PERSONNEL	4	4	1	5
FIXED E & I PERSONNEL	7	13	1	19
RESIDENT TECHNICAL SCHOOL INSTRUCTORS	2	12	10	53
INSTRUCTORS AND MAINTENANCE PERSONNEL	-	5	1	13
JOB CONTROLLERS	2	19	2	35
PLANS AND SCHEDULING PERSONNEL	1	1	2	10
SUPPLY PERSONNEL	-	2	1	7
LIMITED EXPERIENCE QC PERSONNEL	-	2	1	7
NOT GROUPED	68	92	64	-
TOTAL	225	501	270	

TABLE 12

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30430 AIRMEN

TASKS		PERCENT MEMBERS PERFORMING (N=225)
W836	CLEAN MAINTENANCE WORK AREAS	74
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	71
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	65
I206	PERFORM CORROSION CONTROL	64
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	61
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICROMINIATURE COMPONENTS USING SOLDERING METHODS	56
K273	ADJUST AUTOMATIC GAIN CONTROL (AGC) COMPONENTS	47
E120	MAKE ENTRIES ON MAINTENANCE FORMS	45
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	44
G158	PERFORM BASEBAND SWEEPS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	44
K292	ALIGN FM RECEIVERS	42
M427	ALIGN FREQUENCY DIVISION MULTIPLEXERS	42
K281	ADJUST PILOT TONE DETECTOR COMPONENTS	42
K335	PERFORM PMIs ON FM RECEIVERS	42
G162	PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	41
I218	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES, SUCH AS MODULES OR PRINTED CIRCUIT BOARDS, USING SOLDERING METHODS	40
K283	ADJUST RECEIVE COMBINER COMPONENTS	39
I195	INSPECT SAFETY OF EQUIPMENT	38
G152	ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	37
M424	ADJUST PILOT TONE AMPLIFIER COMPONENTS	37
K275	ADJUST FREQUENCY MODULATION (FM) DETECTOR OR DISCRIMINATOR COMPONENTS	37
M458	PERFORM PMIs ON FREQUENCY DIVISION MULTIPLEXERS	36
K284	ADJUST RECEIVE INTERMEDIATE FREQUENCY (IF) AMPLIFIER COMPONENTS	36
I224	SPLICE WIRING OR CABLES	35
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	34
U696	ADJUST BASEBAND AMPLIFIER COMPONENTS	33
U713	ADJUST LOCAL OSCILLATOR COMPONENTS	32
I192	CRATE OR UNCRATE COMPONENTS OR MODULES	32
M420	ADJUST GROUP OR LEVEL REGULATOR COMPONENTS	32
I207	PERFORM SAFETY INSPECTIONS	32
M426	ADJUST TWO WIRE/FOUR WIRE CONVERSION AND TERMINATION CIRCUIT COMPONENTS	32

TABLE 13

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30450 AIRMEN

TASK		PERCENT MEMBERS PERFORMING (N=501)
W836	CLEAN MAINTENANCE WORK AREAS	72
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	71
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	64
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	64
I206	PERFORM CORROSION CONTROL	58
E120	MAKE ENTRIES ON MAINTENANCE FORMS	57
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICROMINIATURE COMPONENTS USING SOLDERING METHODS	57
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	54
I219	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	53
W853	PAINT EQUIPMENT OR FACILITIES	51
G152	ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	50
K281	ADJUST PILOT TONE DETECTOR COMPONENTS	49
K335	PERFORM PMIs ON FM RECEIVERS	49
K273	ADJUST AUTOMATIC GAIN CONTROL (AGC) COMPONENTS	49
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	49
M427	ALIGN FREQUENCY DIVISION MULTIPLEXERS	47
I195	INSPECT SAFETY OF EQUIPMENT	46
K275	ADJUST FREQUENCY MODULATION (FM) DETECTOR OR DISCRIMINATOR COMPONENTS	46
G162	PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	46
K292	ALIGN FM RECEIVERS	46
M424	ADJUST PILOT TONE AMPLIFIER COMPONENTS	45
K284	ADJUST RECEIVE INTERMEDIATE FREQUENCY (IF) AMPLIFIER COMPONENTS	45
K283	ADJUST RECEIVE COMBINER COMPONENTS	45
D89	CONDUCT OJT	43
M420	ADJUST GROUP OR LEVEL REGULATOR COMPONENTS	43
M458	PERFORM PMIs ON FREQUENCY DIVISION MULTIPLEXERS	42
I207	PERFORM SAFETY INSPECTIONS	41
K278	ADJUST NOISE AMPLIFIER COMPONENTS	41
F141	PREPARE NONREPARABLE OR REPARABLE ITEMS FOR TURN-IN	40
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	39

TABLE 14

REPRESENTATIVE TASKS WHICH BEST DIFFERENTIATE DAFSC 30430 AND 30450 PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 30430 PERSONNEL (N=225)	DAFSC 30450 PERSONNEL (N=501)	DIFFERENCE
SECURE CLASSIFIED MATERAL	7	17	-10
ISOLATE MALFUNCTIONS IN SOLID STATE RECEIVE IF AMPLIFIERS	19	29	-10
ISOLATE MALFUNCTIONS IN PATCH PANELS	24	34	-10
ADJUST GROUP OR LEVEL REGULATOR COMPONENTS	32	43	-11
ADJUST HIGH VOLTAGE POWER SUPPLY COMPONENTS	24	35	-11
ISOLATE MALFUNCTIONS IN AIR COOLING SYSTEMS	6	17	-11
ADJUST SQUELCH CIRCUIT COMPONENTS	15	26	-11
EVALUATE PROGRESS OF STUDENTS	3	15	-12
PERFORM EMERGENCY POWER CHANGEOVERS	22	34	-12
WRITE CORRESPONDENCE	5	17	-12
MAKE ENTRIES ON MAINTENANCE FORMS	45	57	-12
ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	37	49	-12
DETERMINE OJT TRAINING REQUIREMENTS	1	14	-13
MAINTAIN STATUS BOARDS OR CHARTS	17	30	-13
ISOLATE MALFUNCTIONS IN EQUIPMENT SAFETY DEVICES, SUCH AS INTERLOCKS	16	29	-13
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	2	16	-14
ADJUST POWER MONITORS	20	34	-14
DEVELOP WORK METHODS OR PROCEDURES	7	21	-14
CONDUCT PROFICIENCY TRAINING	6	22	-16
MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	13	30	-17
COUNSEL TRAINEES ON TRAINING PROGRESS	6	26	-20
SUPERVISE RADIO RELAY EQUIPMENT (WIDEBAND COMMUNICATIONS EQUIPMENT) SPECIALISTS (AFSC 30450)	1	21	-20
COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	12	32	-20
PREPARE APRs	3	25	-22
SUPERVISE APPRENTICE RADIO RELAY EQUIPMENT (WIDEBAND COMMUNICATIONS EQUIPMENT) SPECIALISTS (AFSC 30430)	6	30	-24
DETERMINE WORK PRIORITIES	11	39	-28
CONDUCT OJT	10	43	-33

TABLE 15

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30470 AIRMEN

TASKS		PERCENT MEMBERS PERFORMING (N=270)
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	70
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	67
A5	DETERMINE WORK PRIORITIES	66
C82	PREPARE APRs	64
B60	WRITE CORRESPONDENCE	57
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	57
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	56
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	54
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	54
D89	CONDUCT OJT	53
A7	DEVELOP WORK METHODS OR PROCEDURES	52
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	52
C66	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	51
B56	SUPERVISE RADIO RELAY EQUIPMENT (WIDEBAND COMMUNICATIONS EQUIPMENT) SPECIALISTS (AFSC 30450)	50
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	50
E120	MAKE ENTRIES ON MAINTENANCE FORMS	50
I207	PERFORM SAFETY INSPECTIONS	50
I195	INSPECT SAFETY OF EQUIPMENT	49
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	49
C64	EVALUATE CAPABILITY OF EQUIPMENT	49
A25	SCHEDULE LEAVES OR PASSES	49
A19	PLAN WORK ASSIGNMENTS	49
D91	CONDUCT PROFICIENCY TRAINING	48
E117	MAINTAIN STATUS BOARDS OR CHARTS	47
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	47
E114	MAINTAIN CORRESPONDENCE FILES	47
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	46
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	46
F142	PREPARE REQUISITIONS FOR PARTS, TOOLS, OR SUPPLIES	46
A11	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATION PROCEDURES (SOP)	45

TABLE 16

REPRESENTATIVE TASKS WHICH BEST DIFFERENTIATE DAFSC 30450 AND 30470 PERSONNEL

TASKS	DAFSC 30450 PERSONNEL (N=501)	DAFSC 30470 PERSONNEL (N=270)	DIFFERENCE
CLEAN MAINTENANCE WORK AREAS	72	43	+29
PAINT EQUIPMENT OR FACILITIES	51	30	+21
ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	49	29	+20
READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	71	52	+19
PERFORM CORROSION CONTROL	58	40	+18
PERFORM PMIs ON FM RECEIVERS	49	32	+17
ADJUST PILOT TONE AMPLIFIER COMPONENTS	45	29	+16
PERFORM SITE SECURITY DUTIES	27	12	+15
SPLICE WIRING OR CABLES	37	23	+14
ADJUST NOISE AMPLIFIER COMPONENTS	40	27	+13
ADJUST THRESHOLD EXTENDER COMPONENTS	25	13	+12
PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	45	33	+12
ADJUST GROUP OR LEVEL REGULATOR COMPONENTS	42	30	+12
PERFORM PMIs ON TELETYPE MULTIPLEXERS	28	17	+11
ESTABLISH WIDEBAND LINKS	28	18	+10
DIRECT SUPPLY FUNCTIONS OR TOOL CRIB OPERATIONS	9	19	-10
WRITE TRAINING REPORTS	4	16	-12
COORDINATE LOCAL PURCHASES WITH MAINTENANCE OFFICES OR BASE SUPPLY	7	21	-14
PLAN LAYOUT OF FACILITIES	4	20	-16
EVALUATE JOB DESCRIPTIONS	4	22	-18
MAINTAIN OFFICE SUPPLIES	9	29	-20
WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	3	25	-22
EVALUATE SAFETY PROGRAMS	5	29	-24
INITIATE PERSONNEL ACTION REQUESTS	4	30	-26
DRAFT SUPPLEMENTS OR CHANGES TO DIRECTIVES	5	32	-27
ASSIGN ON-THE-JOB (OJT) TRAINERS	6	35	-29
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	16	50	-34
EVALUATE INSPECTION REPORTS OR PROCEDURES	7	44	-37
PREPARE APRs	25	64	-39
SCHEDULE LEAVES OR PASSES	8	49	-41

ANALYSIS OF EXPERIENCE (TAFMS) GROUPS

In addition to the skill level analysis, survey respondents were also examined on the basis of months of Total Active Federal Military Service (TAFMS). This analysis helps to determine how jobs and job perceptions change over time, and can help describe the types of jobs and tasks more junior personnel can look forward to performing in the future. Also included in this section is an in-depth analysis of 304X0 first-termers (1-48 months TAFMS), which examines the types of tasks performed, equipment maintained, test equipment utilized, and most common types of jobs performed by 304X0 first-termers.

Table 17 presents the relative time spent on duties by six different TAFMS groups, and reveals the different types of radio maintenance functions the personnel in each TAFMS group concentrate on performing. As expected, no major deviations from the usual pattern of increasing time spent on supervisory duties with increasing months TAFMS were noted. Generally, junior airmen spend more time performing technical radio maintenance functions, such as performing general maintenance functions, maintaining receivers to include receive portion of transceivers, and performing support functions, while senior incumbents spend more time on directing and implementing or organizing and planning duties.

Background Analysis

In addition to examining the duty changes that occur in the 304X0 specialty as TAFMS increases, changes in the equipment maintained, the number of tasks performed, and other background data changes can also be noted. Table 18 presents nine different types of background information for first-term (1-48 months TAFMS), second-term (49-96 months TAFMS) and career (97+ months TAFMS) 304X0 personnel. Several interesting trends can be noted in Table 18 , one of which is the percentage of incumbents stationed overseas. Somewhat unexpectedly, it appears that an increasing percentage of 304X0 personnel are stationed overseas with increasing months TAFMS. In other words, the chances of 304X0 personnel being stationed overseas are greater for more senior personnel than junior personnel. Another interesting trend revealed in Table 18 concerns the percentage of personnel maintaining different types of radio equipment, with higher percentages of first-termers maintaining several different types of radio equipment than the two other TAFMS groups.

Job Satisfaction Analysis

Job satisfaction indices for personnel in the three TAFMS groups described above (1-48, 49-96, 97+ months) were also examined. Job interest, perceived utilization of talents or training, and reenlistment intentions are presented in Table 19, along with the comparative sample for personnel from all related career ladders analyzed in 1980. (These comparative sample career ladders include career ladders from the 30XXX, 32XXX, and 42XXX career fields). When compared to the comparative sample, 304X0 first enlistement personnel have somewhat higher job satisfaction indicators, particularly in the

areas of job interest and perceived utilization of talents. Second enlistment personnel, overall, have about the same job satisfaction indicators as the comparative sample. Finally, career 304X0 personnel also report job satisfaction data very similar to career comparative sample personnel with the exception of reenlistment intentions . Only 57 percent of 304X0 career personnel plan to reenlist, while 68 percent of the career comparative sample personnel had the same intentions.

First Enlistment Personnel

Since various issues (primarily training) play such a key role for first enlistment personnel, these incumbents were additionally examined on the basis of the most common tasks and jobs performed and the most common types of test equipment utilized. Table 20 lists the tasks performed by the greatest percentages of 304X0 first enlistment personnel (1-48 months TAFMS). Generally, these most common tasks involve some aspect of wideband radio maintenance, such as adjusting automatic gain control (AGC) components, aligning FM receivers, or adjusting pilot tone detector components.

Although the tasks listed in Table 20 are characteristic of most first-term personnel, other functions performed by these incumbents vary depending on the job they perform. Figure 2 presents the distribution of 304X0 first-term personnel across job groups identified in the CAREER LADDER STRUCTURE section. As expected, a majority of 304X0 first enlistment personnel are identified in either the Radio Relay Equipment Personnel or Junior Radio Relay Equipment Personnel clusters. Tasks which are typically performed by first enlistment personnel in the major job groups revealed in Figure 2 include:

Radio Relay Equipment Personnel

adjust pilot tone amplifier components
adjust noise amplifier components
align FM receivers
align frequency division multiplexers

Junior Radio Relay Equipment Personnel

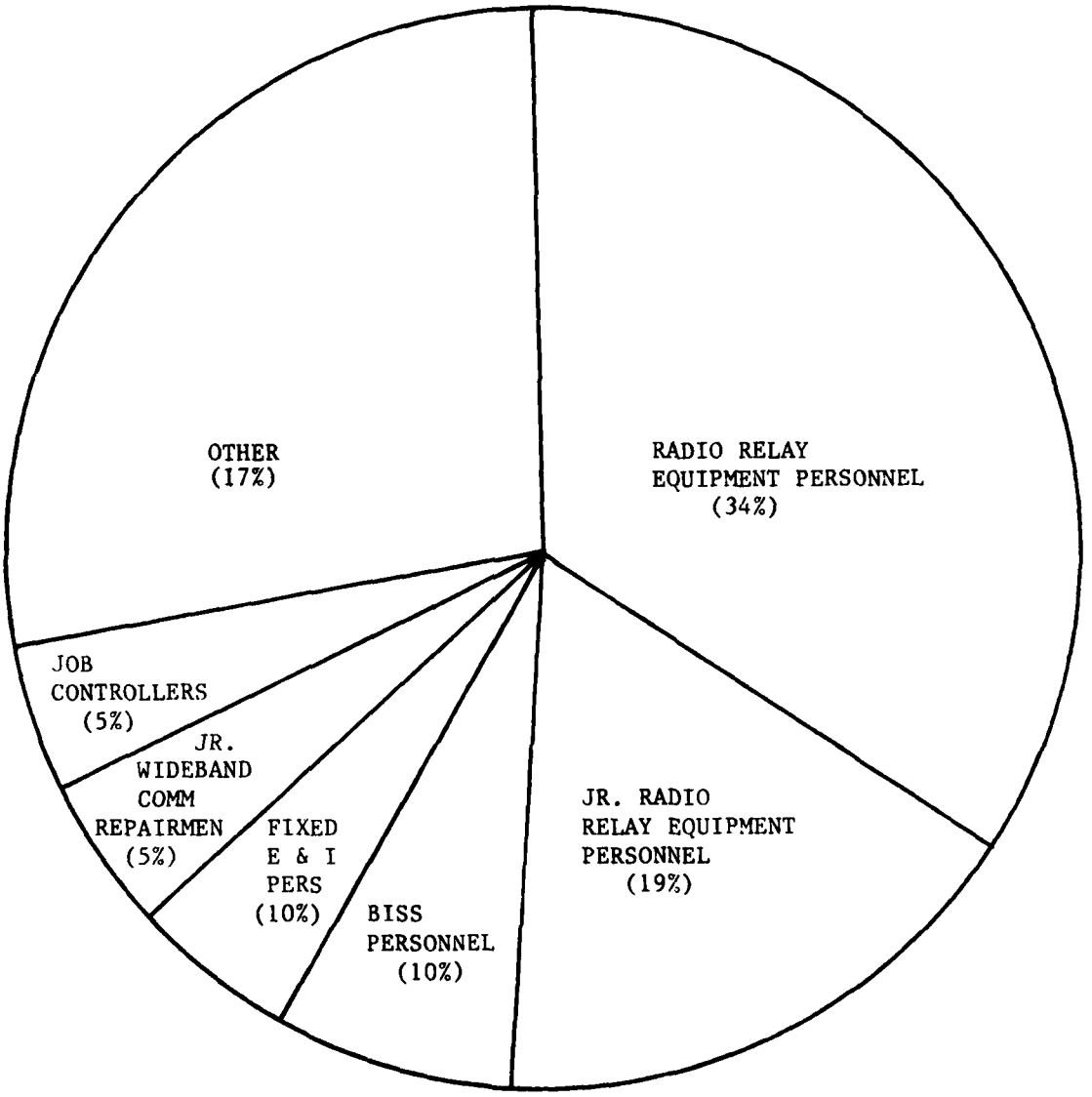
establish orderwire contact with distant terminals
perform corrosion control
perform PMIs on FM receivers
perform baseband sweeps to determine equipment operation or signal quality

BISS Personnel

align perimeter security systems
adjust security system television monitor components
isolate malfunctions in security system seismic sensor systems
isolate malfunctions in security system annunciators

FIGURE 2

JOB GROUP DISTRIBUTION FOR FIRST ENLISTMENT 304X0 AIRMEN
(N=495)



Fixed E & I Personnel

install or remove fixed communication equipment
install or remove mounting hardware
lace cable assemblies or internal wiring
install or remove communications or control towers

Junior Wideband Communications Repairmen

perform turn-on or turn-off procedures
construct shop cables or test plugs
operate heavy duty vehicles, such as 1-1/2 ton trucks or
10 ton tractor-trailer combinations

Job Controllers

maintain status boards or charts
coordinate work activites with other units or agencies
make entries on maintenance forms
compile maintenance data

In addition to the analysis of tasks, various types of test equipment utilized by first-termers were examined. Table 21 reveals that test equipment such as multimeters, oscilloscopes, frequency measuring sets, and RF signal generators are utilized by high percentages of 304X0 first enlistement personnel. Table 21 also reveals that test equipment such as flutter meters, insulation test sets, logic probes, and jitter meters are utilized by very low percentages of 304X0 first-termers, and probably should not be included into the curriculum of any formal 304X0 training.

TABLE 17

RELATIVE PERCENT TIME SPENT ON DUTIES BY 304X0 TAFMS GROUPS

DUTIES	1-48 MOS (N=495)	49-96 MOS (N=147)	97-144 MOS (N=113)	145-192 MOS (N=100)	193-240 MOS (N=108)	241+ MOS (N=31)
ORGANIZING AND PLANNING	2	8	6	10	15	18
DIRECTING AND IMPLEMENTING	3	6	8	11	15	15
INSPECTING AND EVALUATING	*	3	5	9	14	18
TRAINING	3	7	11	11	12	10
PREPARING AND MAINTAINING FORMS, RECORDS, AND REPORTS	5	8	9	8	9	8
PERFORMING SUPPLY FUNCTIONS	3	3	5	5	4	5
PERFORMING EQUIPMENT OPERATION FUNCTIONS	11	7	8	5	4	3
PERFORMING SATELLITE OPERATION FUNCTIONS	*	*	*	*	*	*
PERFORMING GENERAL MAINTENANCE FUNCTIONS	15	10	8	7	5	5
MAINTAINING ANTENNA SYSTEMS	2	1	1	*	*	*
MAINTAINING RECEIVERS TO INCLUDE RECEIVER PORTION OF TRANSCEIVERS	11	10	9	7	5	4
MAINTAINING TRANSMITTERS TO INCLUDE TRANSMIT PORTION OF TRANSCEIVERS	7	6	6	5	4	2
MAINTAINING VOICE FREQUENCY MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	7	6	6	4	4	1
MAINTAINING TELETYPE MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	4	3	3	2	*	*
MAINTAINING COMMUNICATION OR CONTROL CONSOLES	*	*	*	*	*	*
MAINTAINING AUDIO OR FACSIMILE EQUIPMENT	*	*	*	*	*	*
MAINTAINING SCOPE CONTROL OR UNIVERSAL RADIO GROUP EQUIPMENT	*	*	*	*	*	*
MAINTAINING MODEMS	*	*	*	*	*	*
MAINTAINING TRACKING SYSTEMS	*	*	*	*	*	*
MAINTAINING BASE AND INSTALLATION SECURITY SYSTEMS	6	4	2	2	*	*
MAINTAINING COMMON OR MISCELLANEOUS SUBASSEMBLIES	9	8	8	6	4	3
PERFORMING SITE INSTALLATION OR MOVING FUNCTIONS	3	2	1	2	*	1
PERFORMING SUPPORT FUNCTIONS	9	6	4	3	3	3

*DENOTES LESS THAN ONE PERCENT

TABLE 18

BACKGROUND INFORMATION FOR FIRST-TERM, SECOND-TERM, AND CAREER PERSONNEL

	1-48 MOS TAFMS PERSONNEL (N=495)	49-96 MOS TAFMS PERSONNEL (N=147)	97+ MOS TAFMS PERSONNEL (N=352)
AVERAGE NUMBER OF TASKS PERFORMED:	74	94	97
AVERAGE NUMBER OF PERSONS SUPERVISED:	-	2	3
MAJOR COMMAND:			
AFCC	70%	70%	69%
TAC	13%	6%	5%
USAFE	8%	11%	12%
PERCENT LOCATED OVERSEAS:	43%	55%	64%
PERCENT MAINTAINING EQUIPMENT UTILIZING MICROPROCESSOR TECHNOLOGY	22%	20%	16%
PERCENT COMPLETING THE FOLLOWING COURSES:			
3ABR30430-000 RADIO RELAY EQUIPMENT REPAIRMENT	98%	98%	97%
3AZR30450-001 AN/TRC-97A RADIO SET	17%	20%	35%
3AZR30430-003 PERIMETER SECURITY SYSTEM	5%	14%	7%
3AZR30450-006 486L MUX/LOS	3%	16%	25%
3AZR30450-007 WIDEBAND COMMUNICATION	5%	15%	32%
PERCENT WORKING AT THE FOLLOWING AREAS:			
MICROWAVE RADIO RELAY SITE (MOBILE)	24%	16%	13%
MICROWAVE RADIO RELAY SITE (FIXED)	29%	38%	32%
RADIO RELAY SITE (FIXED)	10%	16%	15%
RADIO RELAY SITE (MOBILE)	14%	11%	9%
TROPO RADIO RELAY SITE (FIXED)	6%	12%	14%
TROPO RADIO RELAY SITE (MOBILE)	16%	14%	12%
PERCENT MAINTAINING THE FOLLOWING EQUIPMENT:			
AN/FRC-155/157/158/159/162/165 SHF TRANSCEIVERS	11%	8%	11%
AN/TRC-97A SHF TRANSCEIVERS	32%	21%	18%
AN/FRC-96/97 VHF/UHF EQUIPMENT	7%	10%	8%
AN/GSS-29 BASE INSTALLATION SECURITY SYSTEMS	16%	14%	7%
AN/FCC-17 FAMILY MULTIPLEXERS	7%	4%	10%
AN/FCC-32 MULTIPLEXERS	8%	11%	10%
AN/UCC-4 MULTIPLEXERS	21%	15%	13%
SIEMENS VZ-12/120 FU MULTIPLEXERS	8%	7%	12%

TABLE 19

JOB SATISFACTION AND RELATED DATA FOR 304X0 FIRST-TERM (1-48 MONTHS TAFMS), SECOND-TERM (49-96 MONTHS TAFMS) AND CAREER (97+ MONTHS TAFMS) AND COMPARATIVE SAMPLE PERSONNEL
(PERCENT MEMBERS RESPONDING)

	MONTHS TAFMS					
	1-48		49-96		97+	
	304X0 (N=495	1980 COMP* SAMPLE (N=1,374)	304X0 (N=147)	1980 COMP* SAMPLE (N=853)	304X0 (N=352)	1980 COMP* SAMPLE (N=1,421)
I FIND MY JOB:						
NO RESPONSE	1	-	1	-	2	1
DULL	17	24	20	17	12	14
SO-SO	17	20	19	22	14	16
INTERESTING	65	56	60	61	72	69
MY JOB UTILIZES MY TALENTS:						
NO RESPONSE	-	-	1	-	1	-
NOT AT ALL TO VERY LITTLE	29	37	26	31	21	24
FAIRLY WELL OR BETTER	71	63	73	69	78	76
MY JOB UTILIZES MY TRAINING:						
NO RESPONSE	-	1	1	-	1	1
NOT AT ALL TO VERY LITTLE	34	30	33	28	24	25
FAIRLY WELL OR BETTER	66	69	66	72	75	74
I PLAN TO REENLIST:						
NO RESPONSE	-	1	1	1	1	1
NO, PLANNING TO RETIRE	-	**	-	**	23	**
NO OR PROBABLY NO	65	66	57	51	19	31
YES OR PROBABLY YES	35	33	42	48	57	68

* (INCLUDES PERSONNEL IN AFSCs 302XX, 207XX, 208XX, 322XX, AND 427XX)
**"NO, PLANNING TO RETIRE" WAS NOT ASKED IN THE 1980 SURVEYS

TABLE 20

REPRESENTATIVE TASKS PERFORMED BY 304X0 AIRMEN WITH 1-48 MONTHS TAFMS

TASKS		PERCENT MEMBERS PERFORMING (N=495)
W836	CLEAN MAINTENANCE WORK AREAS	76
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	72
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	65
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	63
I206	PERFORM CORROSION CONTROL	62
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICROMINIATURE COMPONENTS USING SOLDERING METHODS	56
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	51
E120	MAKE ENTRIES ON MAINTENANCE FORMS	50
I219	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	50
K273	ADJUST AUTOMATIC GAIN CONTROL (AGC) COMPONENTS	49
W853	PAINT EQUIPMENT OR FACILITIES	49
K281	ADJUST PILOT TONE DETECTOR COMPONENTS	48
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	48
K335	PERFORM PMIs ON FM RECEIVERS	46
G162	PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	45
K292	ALIGN FM RECEIVERS	45
M427	ALIGN FREQUENCY DIVISION MULTIPLEXERS	44
K283	ADJUST RECEIVE COMBINER COMPONENTS	44
G152	ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	44
I218	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES, SUCH AS MODULES OR PRINTED CIRCUIT BOARDS, USING SOLDERING METHODS	44
K284	ADJUST RECEIVE INTERMEDIATE FREQUENCY (IF) AMPLIFIER COMPONENTS	43
K275	ADJUST FREQUENCY MODULATION (FM) DETECTOR OR DISCRIMINATOR COMPONENTS	43
G158	PERFORM BASEBAND SWEEPS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	42
I195	INSPECT SAFETY OF EQUIPMENT	42
M424	ADJUST PILOT TONE AMPLIFIER COMPONENTS	42
M458	PERFORM PMIs ON FREQUENCY DIVISION MULTIPLEXERS	41
M420	ADJUST GROUP OR LEVEL REGULATOR COMPONENTS	39
K278	ADJUST NOISE AMPLIFIER COMPONENTS	38
I192	CRATE OR UNCRATE COMPONENTS OR MODULES	38
I224	SPLICE WIRING OR CABLES	38

TABLE 21

TYPES OF TEST EQUIPMENT UTILIZED BY DAFSC 304X0 FIRST-TERM PERSONNEL
(PERCENT MEMBERS UTILIZING)

TEST EQUIPMENT	1-48 MONTHS TAFMS PERSONNEL (N=495)
MULTIMETERS	93
OSCILLOSCOPES	88
FREQUENCY SELECTIVE VOLTMETERS	76
FREQUENCY MEASURING SETS	73
AUDIO FREQUENCY SIGNAL GENERATORS	73
POWER METERS	71
RF SIGNAL GENERATORS	70
VOLTAGE MEASURING EQUIPMENT	69
NOISE MEASURING SETS	68
POWER SUPPLIES	66
SPECTRUM ANALYZERS	66
BUILT-IN TEST EQUIPMENT (BITE)	46
DISTORTION ANALYZERS	42
NOISE GENERATORS	41
TELEPHONE TEST SETS	41
MODULATION/DEVIATION METERS	37
HIGH VOLTAGE PROBES	34
POWER AMPLIFIERS	32
CIRCUIT BOARD TESTERS	27
VSWR METERS	22
TUBE TESTERS	21
TELETYPE TEST SETS	20
PRESSURE GAUGES	18
SEMICONDUCTOR TESTERS	17
CAPACITOR TEST SETS	11
FLUTTER METERS	-
INSULATION TEST SETS	-
JITTER METERS	-
LEISK ANALYZERS	-
LOGIC PROBES	-
TIME DOMAIN REFLECTOMETERS	-
VACUUM PUMPS	-

"-" REPRESENTS LESS THAN TEN PERCENT

COMPARISON OF SURVEY DATA TO AFR 39-1 SPECIALTY DESCRIPTIONS

Survey data for the 304X0 career ladder were compared to AFR 39-1 Specialty Descriptions, dated 31 October 1980 (for DAFSCs 30410, 30430, 30450, and 30470). These descriptions are intended to give a broad overview of the duties and tasks required to be performed by the various skill level personnel. Overall, the 3-, 5-, and 7-skill level descriptions were found to provide a clear, concise overview of the major duties and tasks performed by 304X0 incumbents.

ANALYSIS OF MAJOR COMMAND DIFFERENCES

An analysis of the tasks and duties performed by first enlistment (1-48 months TAFMS) MAJCOM groups can provide additional insight to management and training personnel as to the different training requirements for various MAJCOM personnel. In many specialties, the jobs performed by first-term personnel varies little across MAJCOMs; however, this is not the case with the 304X0 specialty. The three biggest users of 304X0 first enlistment personnel (ATC, TAC, and AFCC) were examined, and all three MAJCOMs had personnel performing different tasks or maintaining different wideband radio systems. In other words, the jobs performed by first enlistment personnel in the 304X0 specialty does vary depending upon the MAJCOM assigned.

Given below are brief narrative job descriptions concerning the three MAJCOMs mentioned above. In addition, four tables at the end of this section provide various types of task and background data for each of the three MAJCOMs, and can be extremely useful for pointing out differences and similarities between first-term MAJCOM groups. For an overall view of how the jobs vary among MAJCOM groups, Table 22 reveals the relative percent of job time spent performing various duties. For example, Table 22 reveals ATC personnel spend 43 percent of their job time performing training type functions, while TAC personnel spend 13 percent of their job time performing support functions. Table 23 helps to point out more specific differences between first enlistment MAJCOM groups by listing the tasks which best differentiate these groups. For example, security system maintenance tasks are performed by substantially higher percentages of AFCC first-termers, while tasks involving training are performed by higher percentages of ATC personnel. Table 24 reveals various types of background differences, such as equipment maintained, work area, or average number of tasks performed for the MAJCOM groups. Table 24 reveals that TAC first enlistment personnel perform the highest average number of tasks (78) and have the highest percentage of personnel working at mobile microwave radio relay sites (68 percent). Finally, Table 25 provides various types of job satisfaction data for first-term MAJCOM personnel, such as job interest, reenlistment intentions, etc. Based on Table 25, it appears that overall, ATC first-termers are the most satisfied, and TAC personnel appear to be the least satisfied.

ATC

The 10 first enlistment personnel assigned to this MAJCOM are conducting various aspects of resident course classroom training, with 70 percent possessing the "T" prefix. As expected, these incumbents spend a large amount of job time performing training type tasks (43 percent), which are the types of tasks which best differentiate these incumbents (see Table 23). Some examples of these distinguishing tasks include conducting remedial training, evaluating progress of students, and scoring tests. A review of background information reveals these incumbents are all stationed in CONUS, 70 percent are in an ATC radio shop or the technical school, and perform an average of only 42 tasks. Table 25 reveals that the first-termers in this command are extremely satisfied, with 90 percent finding their job interesting and 100 percent perceiving their job utilizes their talents at least fairly well.

TAC

The 66 first enlistment personnel assigned to this MAJCOM are primarily working in tactical communications units or Combat Communications Groups. These personnel are responsible for setting up and maintaining the mobile wideband communications radio systems associated with these types of units. Table 23 reveals that the tasks which best differentiate these incumbents are primarily mobility or mobile equipment oriented, and include adjusting feedhorn assembly components, adjusting parabolic antenna components, or emplacing or anchoring equipment vans or shelters. Table 24 reveals most of these incumbents (92 percent) are stationed in CONUS, and most (82 percent) maintain the AN/TRC-97A radio set. Finally, a review of job satisfaction data reveals these first-termers are the least satisfied, with only 62 percent finding their job interesting and only 33 percent planning to reenlist. These low job satisfaction indices are probably due to the fact that these incumbents, being associated with mobile communications units, spend a lot of time TDY. In addition, when they are not TDY participating in an exercise, they do not have much of a job to perform.

AFCC

As expected, a majority of the 304X0 first-termers are assigned to this MAJCOM, with these incumbents spending substantial percentages of job time performing equipment operation functions, general maintenance functions, maintaining receivers and transmitters, and performing support functions. While these incumbents maintain a number of different wideband communications radio systems, the tasks which best differentiate these first-termers involve base installation security systems (BISS). Examples of these BISS type tasks include aligning perimeter security systems, adjusting security system area sensor system components, or isolating malfunctions in security system annunciators. Table 24 reveals a high percentage of these respondents are stationed overseas (45 percent), are located at a variety of work areas (E&I units, fixed microwave radio relay sites, etc.), and maintain a variety of SHF, BISS, and multiplex type equipment. A review of job satisfaction data reveals these personnel are slightly more satisfied than TAC personnel, with 67 percent finding their job interesting and 35 percent planning to reenlist.

Summary

The jobs performed by 304X0 first enlistment personnel can vary considerably depending upon the MAJCOM assigned. ATC first-termers seem to be responsible for various aspects of 304X0 resident course classroom training, and are the most satisfied of all MAJCOM personnel. However, ATC first-termers make up a very small percentage of personnel when compared to TAC and AFCC first enlistment respondents. TAC first-termers are responsible for maintaining the mobile wideband communications equipment associated with tactical communications units and Combat Communications Groups. These personnel are the least satisfied, probably due to the fact that they are TDY much of the time. Finally, AFCC personnel maintain a wide variety of wideband communications equipment, but tasks related to BISS maintenance seem to best differentiate these first-termers.

TABLE 22

RELATIVE PERCENT TIME SPENT ON DUTIES BY
FIRST-TERM MAJOR COMMAND GROUPS

DUTIES	ATC (N=10)	TAC (N=66)	AFCC (N=346)
ORGANIZING AND PLANNING	*	2	3
DIRECTING AND IMPLEMENTING	5	1	3
INSPECTING AND EVALUATING	*	*	*
TRAINING	43	1	2
PREPARING AND MAINTAINING FORMS, RECORDS, AND REPORTS	1	3	5
PERFORMING SUPPLY FUNCTIONS	*	2	3
PERFORMING EQUIPMENT OPERATION FUNCTIONS	12	12	10
PERFORMING SATELLITE OPERATION FUNCTIONS	*	*	*
PERFORMING GENERAL MAINTENANCE FUNCTIONS	11	15	15
MAINTAINING ANTENNA SYSTEMS	*	3	*
MAINTAINING RECEIVERS TO INCLUDE RECEIVE PORTION OF TRANSCEIVERS	8	15	10
MAINTAINING TRANSMITTERS TO INCLUDE TRANSMIT PORTION OF TRANSCEIVERS	8	8	6
MAINTAINING VOICE FREQUENCY MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	3	8	9
MAINTAINING TELETYPE MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	1	3	4
MAINTAINING COMMUNICATION OR CONTROL CONSOLES	*	*	*
MAINTAINING AUDIO OR FACSIMILE EQUIPMENT	*	*	*
MAINTAINING SCOPE CONTROL OR UNIVERSAL RADIO GROUP EQUIPMENT	*	*	*
MAINTAINING MODEMS	*	*	*
MAINTAINING TRACKING SYSTEMS	*	*	*
MAINTAINING BASE AND INSTALLATION SECURITY SYSTEMS	*	*	7
MAINTAINING COMMON OR MISCELLANEOUS SUBASSEMBLIES	5	8	9
PERFORMING SITE INSTALLATION OR MOVING FUNCTIONS	*	4	3
PERFORMING SUPPORT FUNCTIONS	*	13	9

*DENOTES LESS THAN ONE PERCENT

TABLE 23

REPRESENTATIVE TASKS WHICH BEST DIFFERENTIATE FIRST-TERM MAJOR COMMAND GROUPS
(PERCENT MEMBERS PERFORMING)

TASKS		ATC (N=10)	TAC (N=66)	AFCC (N=346)
D86	ADMINISTER TESTS	60	-	2
D91	CONDUCT PROFICIENCY TRAINING	50	6	10
D92	CONDUCT REMEDIAL TRAINING	60	5	4
D93	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	60	-	2
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	60	9	7
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	90	14	18
D105	EVALUATE PROGRESS OF STUDENTS	60	5	4
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	50	12	11
D109	SCORE TESTS	60	-	1
D110	WRITE TEST QUESTIONS	50	-	1
J233	ADJUST FEEDHORN ASSEMBLY COMPONENTS	-	47	8
J237	ADJUST PARABOLIC ANTENNA COMPONENTS	-	52	8
J243	ADJUST WAVEGUIDE DEVICE COMPONENTS	10	29	10
K315	ISOLATE MALFUNCTIONS IN THRESHOLD EXTENDERS	-	49	15
L352	ADJUST SHF POWER AMPLIFIER COMPONENTS	10	36	16
L412	PERFORM PMIs ON FM SHF TRANSMITTERS, EXCITERS, OR UP CONVERTERS	20	42	25
N480	PERFORM PMIs ON TELETYPE MULTIPLEXERS	10	42	23
U725	ADJUST SYNTHESIZER COMPONENTS	10	50	13
V816	EMPLACE OR ANCHOR EQUIPMENT VANS OR SHELTERS	-	35	8
V825	INSTALL OR REMOVE MOBILE COMMUNICATION EQUIPMENT	-	49	14
T633	ADJUST SECURITY SYSTEM AREA SENSOR SYSTEM COMPONENTS	-	-	14
T657	ALIGN PERIMETER SECURITY SYSTEMS	-	-	12
T659	ISOLATE MALFUNCTIONS IN PERIMETER SECURITY SYSTEMS	-	-	16
T661	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM ANNUNCIATORS	-	-	12
T663	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM AREA SENSOR SYSTEMS	-	-	14
T668	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM FENCE DISTURBANCE SENSOR SYSTEMS	-	-	15
T687	PERFORM PMIs ON PERIMETER SECURITY SYSTEMS	-	-	14
U736	ISOLATE MALFUNCTIONS IN BATTERY CHARGING SYSTEMS	-	-	13
U746	ISOLATE MALFUNCTIONS IN MAIN DISTRIBUTION FRAMES AND ASSOCIATED WIRING	-	9	24

TABLE 24

BACKGROUND DATA FOR FIRST-TERM MAJOR COMMAND GROUPS

	ATC PERSONNEL (N=10)	TAC PERSONNEL (N=66)	AFCC PERSONNEL (N=346)
AVERAGE NUMBER OF TASKS PERFORMED:	42	78	71
PERCENT WITH T PREFIX:	70%	-	-
PERCENT ASSIGNED OVERSEAS:	-	8%	45%
PERCENT MAINTAINING EQUIPMENT UTILIZING MICROPROCESSOR TECHNOLOGY:	-	8%	26%
PERCENT COMPLETING THE FOLLOWING COURSES:			
3ABR30430-000 RADIO RELAY EQUIPMENT REPAIRMAN	100%	100%	98%
3ABR30450-001 AN/TRC-97A RADIO SET	-	30%	14%
PERCENT WORKING IN THE FOLLOWING AREAS:			
ATC RADIO SHOP	40%	2%	4%
ENGINEERING AND INSTALLATION UNIT	-	-	9%
MICROWAVE RADIO RELAY SITE (MOBILE)	-	68%	11%
MICROWAVE RADIO RELAY SITE (FIXED)	10%	15%	34%
RADIO RELAY SITE (FIXED)	10%	3%	13%
RADIO RELAY SITE (MOBILE)	-	32%	9%
TRAINING UNIT (TECH SCHOOL)	30%	-	-
PERCENT MAINTAINING THE FOLLOWING TYPES OF EQUIPMENT:			
SHF TRANSCEIVERS			
AN/FRC-127	30%	-	8%
AN/FRC-155/157/158/159/162/165	20%	-	13%
AN/TRC-97A	30%	82%	19%
VHF/UHF RECEIVERS, TRANSCEIVERS, OR TRANSMITTERS			
AN/FRC-39 FAMILY	30%	2%	5%
AN/FRC-96/97	30%	-	8%
BASE INSTALLATION SECURITY SYSTEMS			
AN/GSQ-199	30%	-	4%
AN/GSS-20	30%	-	6%
AN/GSS-29	30%	2%	19%
AN/GSK-2	-	-	10%
MULTIPLEXERS			
AN/FCC-17 FAMILY	-	-	9%
AN/FCC-32	-	-	10%
AN/UCC-4	30%	6%	26%
OTHER	10%	36%	12%

TABLE 25

JOB SATISFACTION AND RELATED DATA FOR FIRST-TERM MAJOR COMMAND GROUPS
(PERCENT MEMBERS RESPONDING)

	ATC (N=10)	TAC (N=66)	AFCC (N=346)
I FIND MY JOB:			
DULL	-	20	15
SO-SO	10	18	17
INTERESTING	90	62	67
MY JOB UTILIZES MY TALENTS:			
NOT AT ALL TO VERY LITTLE	-	36	28
FAIRLY WELL OR BETTER	100	64	72
MY JOB UTILIZES MY TRAINING:			
NOT AT ALL TO VERY LITTLE	-	33	34
FAIRLY WELL OR BETTER	100	67	66
I PLAN TO REENLIST:			
NO, PLANNING TO RETIRE	-	-	-
NO OR PROBABLY NO	50	67	65
YES OR PROBABLY YES	50	33	35

ANALYSIS OF CONUS VERSUS OVERSEAS GROUPS

A comparison was made between the tasks performed and the background data for the DAFSC 30450 personnel who were assigned within the CONUS versus those who were assigned to overseas locations. This analysis can be useful to management and training personnel by pointing out what task and equipment differences occur overall between CONUS and overseas locations, and if any other substantial differences (i.e., job satisfaction) occur between these two groups of personnel.

Overall, the jobs and tasks performed by these two groups of personnel are very similar, with wideband radio maintenance functions making up a majority of both groups job time. Some task differences can be noted, however, and these tasks can be found in Table 26. Table 26 reveals that tasks related to the maintenance of security systems, such as adjusting security system area sensor system components, isolating malfunctions in perimeter security systems, and isolating malfunctions in security system annunciators are more indicative of DAFSC 30450 CONUS personnel. Various types of radio operations and maintenance tasks were identified as being performed by higher percentages of DAFSC 30450 overseas personnel, and include performing switchovers of equipment subassemblies to redundant equipment, performing alternate circuit routing at patch and test facilities, and performing PMIs on FM receivers.

Table 27 provides various types of background data for both DAFSC 30450 CONUS and overseas personnel, and can highlight additional differences and similarities between these two groups. DAFSC 30450 overseas personnel perform a higher average number of tasks (92 versus 78), are more senior (averaging 61 months TAFMS versus 55 months), and a much higher percentage is working at a fixed microwave radio relay site (50 versus 16 percent). When examining the most common types of radio equipment maintained by CONUS and overseas personnel, higher percentages of CONUS personnel maintain the AN/TRC-97A radio set and AN/GSS-29 security system, while higher percentages of overseas personnel maintain the Siemens VZ-12/120 FU, AN/UCC-4, and AN/FRC 96/97. Overall, the job satisfaction data for both groups is very similar, with the biggest differences occurring with the perceived utilization of training, with approximately nine percent more overseas personnel perceiving their job utilizes their training at least fairly well than CONUS personnel.

TABLE 26

REPRESENTATIVE TASKS WHICH BEST DIFFERENTIATE DAFSC 30450 CONUS AND OVERSEAS PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 30450 CONUS PERSONNEL (N=226)	DAFSC 30450 OVERSEAS PERSONNEL (N=374)	DIFFERENCE
ADJUST SECURITY SYSTEM AREA SENSOR SYSTEM COMPONENTS	17	5	+12
ISOLATE MALFUNCTIONS IN PERIMETER SECURITY SYSTEMS	17	6	+11
OPERATE HEAVY DUTY VEHICLES, SUCH AS 1-1/2 TON TRUCKS OR 10 TON TRACTOR-TRAILER COMBINATIONS	31	20	+11
ISOLATE MALFUNCTIONS IN SECURITY SYSTEM ANNUNCIATORS	15	5	+10
ADJUST SECURITY SYSTEM FENCE DISTURBANCE SENSOR SYSTEM COMPONENTS	17	7	+10
ISOLATE MALFUNCTIONS IN SECURITY SYSTEM FENCE DISTURBANCE SENSOR SYSTEMS	16	6	+10
ISOLATE MALFUNCTIONS IN SECURITY SYSTEM AREA SENSOR SYSTEMS	14	4	+10
ALIGN FM RECEIVERS	35	54	-19
ADJUST GROUP OR LEVEL REGULATOR COMPONENTS	32	52	-20
ISOLATE MALFUNCTIONS IN DEHYDRATORS OR PRESSURIZERS	2	22	-20
ALIGN FREQUENCY DIVISION MULTIPLEXERS	35	56	-21
ISOLATE MALFUNCTIONS IN TUBE TYPE FM RECEIVERS	7	28	-21
PERFORM PMIs ON FREQUENCY DIVISION MULTIPLEXERS	30	51	-21
PREPARE NONREPARABLE OR REPARABLE ITEMS FOR TURN-IN	28	49	-21
ADJUST PILOT TONE DETECTOR COMPONENTS	37	59	-22
PERFORM BASEBAND SWEEPS TO DETERMINE EQUIPMENT OR SIGNAL QUALITY	26	49	-23
OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	51	74	-23
PERFORM SITE SECURITY DUTIES	14	38	-24
ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	35	61	-26
PERFORM PMIs ON FM RECEIVERS	35	61	-26
PERFORM EMERGENCY POWER CHANGEOVERS	19	46	-27
READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	56	83	-27
PERFORM ALTERNATE CIRCUIT ROUTING AT PATCH AND TEST FACILITIES	13	41	-28
PERFORM SWITCHOVERS OF EQUIPMENT SUBASSEMBLIES TO REDUNDANT EQUIPMENT	21	53	-32

TABLE 27

JOB SATISFACTION AND BACKGROUND INFORMATION FOR
DAFSC 30450 CONUS AND OVERSEAS GROUPS

	CONUS PERSONNEL (N=226)	OVERSEAS PERSONNEL (N=274)
AVERAGE NUMBER OF TASKS PERFORMED:	78	92
AVERAGE MONTHS TAFMS:	55	61
PERCENT FINDING THEIR JOB INTERESTING:	63%	63%
PERCENT PERCEIVING THEIR TALENTS ARE UTILIZED AT LEAST FAIRLY WELL:	74%	73%
PERCENT PERCEIVING THEIR TRAINING IS UTILIZED AT LEAST FAIRLY WELL:	64%	73%
PERCENT PLANNING TO REENLIST:	36%	43%
PERCENT ON A CONUS ISOLATED/OVERSEAS REMOTE ASSIGNMENT:	2%	23%
PERCENT MAINTAINING EQUIPMENT WHICH USES MICROPROCESSOR TECHNOLOGY:	26%	20%
PERCENT WORKING AT MICROWAVE RADIO RELAY SITE (FIXED):	16%	50%
PERCENT WORKING AT RADIO RELAY INTRUSION DETECTION SITE:	10%	4%
PERCENT MAINTAINING THE FOLLOWING EQUIPMENT:		
AN/TRC-97A	32%	22%
AN/GSS-29	21%	6%
AN/FCC-32	4%	13%
SIEMENS VZ-12/120 FU	-	14%
AN/UCC-4	16%	19%
AN/FRC-96/97	5%	10%
PERCENT UTILIZING THE FOLLOWING TEST EQUIPMENT:		
AUDIO FREQUENCY SIGNAL GENERATORS	50%	85%
FREQUENCY MEASURING SETS	59%	84%
FREQUENCY SELECTIVE VOLTMETERS	60%	89%
MULTIMETERS	82%	94%
NOISE MEASURING SETS	50%	77%
OSCILLOSCOPES	79%	88%
POWER METERS	56%	83%
POWER SUPPLIES	58%	66%
SPECTRUM ANALYZERS	54%	70%
RF SIGNAL GENERATORS	57%	79%

TRAINING ANALYSIS

Occupational survey data is just one of the many sources of information which can be used to help make training programs more meaningful and relevant to students. Factors provided in occupational surveys which may be used in evaluating training are the percentage of first enlistment personnel performing tasks, percentage of first enlistment personnel maintaining equipment, percentage of first enlistment personnel utilizing test equipment, percentage of first enlistment personnel utilizing electronic principles, and task difficulty ratings. These factors can be used in evaluating the Specialty Training Standard (STS) for the 304X0 specialty. Technical school personnel at Keesler AFB MS matched inventory tasks to areas of instruction outlined in the STS, dated April 1980. A complete computer listing of the percent members performing and task difficulty ratings for each task along with the matching STS paragraph and subparagraph has been forwarded to technical school and MAJCOM training personnel for their use in reviewing training documents. A summary of that information is described below.

Analysis of Task Difficulty

The relative difficulty of each task in the job inventory was assessed through ratings of 39 experienced 7- and 9-skill level Wideband Communications NCOs. These tasks were processed to produce an ordered listing of all tasks in terms of their relative difficulty and were standardized to have an average difficulty of 5.0 (68 percent of all 863 tasks have ratings between 4.0 and 6.0). It is important to note that this task difficulty task listing is somewhat different than the task listing presented in this section of AFPT 90-304-422, Volume I. The task difficulty analysis in this report uses only the ratings from 304X0 task difficulty raters, while the AFPT 90-304-422, Volume I task difficulty analysis utilizes the combined ratings from the personnel in three specialties (AFSs 304X0, 304X4, and 304X6). Because the personnel in different specialties may view the difficulty of tasks somewhat differently than the personnel in another specialty, it is important to use only specialty specific raters when analyzing specialty specific documents, such as the STS. Therefore, the analysis of task difficulty and that of the STS will only use the ratings of 304X0 personnel. (For a more complete description of these ratings, see the Task Factor Administration section in the INTRODUCTION).

In order to help insure that the 304X0 raters reflect the same perceptions as the rest of the career ladder concerning task difficulty, it is necessary that a representative sample of task difficulty raters be obtained. Table 28 reveals the major command distribution of the task difficulty raters versus the same distribution of all the personnel assigned to the 304X0 specialty, and reveals a representative sample of task difficulty raters was obtained. Having a representative sample is extremely important, especially when the personnel in different major commands utilize or maintain different types of equipment, because a large overrepresentation of one major command may lead to spurious task difficulty ratings. This was not the case with the 304X0 task difficulty ratings.

Table 29 lists the tasks rated the most difficult by 304X0 task difficulty raters. Almost all of these tasks involve some aspect of radio maintenance, and seem to involve isolating malfunctions on fiberoptic, multiplex, or security system type equipment. Examples of these most difficult tasks include isolating malfunctions in fiberoptic systems, isolating malfunctions in security system television cameras, or isolating malfunctions in tube type pulse coded modulation multiplexers. Table 29 also reveals the percentage of all 304X0 and 304X0 first enlistment personnel performing each of those tasks rated the most difficult. Very similar percentages of first enlistment personnel perform those maintenance tasks rated the most difficult as the total 304X0 sample. A substantially lower percentage of first enlistment personnel can be noted as performing those supervisory tasks rated high in difficulty than the total 304X0 sample.

Most of the tasks rated about average in difficulty are also maintenance oriented, but seem to involve more adjusting and PMI type tasks than those involving the isolation of malfunctions (Table 30). Some of these tasks rated about average in difficulty include adjusting E- and -M signaling and control circuit components, adjusting HF receive RF amplifier components, and adjusting buffer or isolation amplifier components. Generally, a greater percentage of both 304X0 first-termers and total 304X0 sample personnel perform these tasks rated about average in difficulty than those rated high in difficulty.

Table 31 lists the tasks rated the least difficult by senior 304X0 personnel. Generally, these tasks involve routine maintenance, administrative functions, or aspects of tactical communications. Examples of these relatively easy tasks include skirting vans, painting equipment or facilities, or clearing mobility work areas. As expected, most of the tasks rated the least difficult are performed by high percentages of first-termers and total sample personnel.

Analysis of the Specialty Training Standard

The 304X0 Specialty Training Standard (STS), dated April 1980, was reviewed for first enlistment (1-48 months TAFMS) and 5- and 7-skill level Wideband Communications Equipment personnel. Subject matter specialists at the Keesler Technical Training Center assisted in the analysis by matching job inventory tasks to specific paragraphs in the STS. Each paragraph in the STS was then analyzed using task difficulty and percent members performing vectors to determine if the paragraph had job inventory justification for being in the STS. For the 304X0 specialty, the STS was found to give a broad overview of the career ladder, and all STS paragraphs appear to be well justified based on occupational data.

TABLE 28

MAJOR COMMAND REPRESENTATION OF TASK DIFFICULTY RATERS

MAJOR COMMAND	PERCENT OF ASSIGNED	PERCENT OF TASK DIFFICULTY RATERS
AFCC	72	72
TAC	7	3
USAFE	3	5
ATC	2	10
OTHER	16	10
TOTAL	100	100

TOTAL NUMBER OF TASK DIFFICULTY RATERS = 39

TABLE 29

REPRESENTATIVE TASKS RATED THE MOST DIFFICULT BY DAFSC 304X0 TASK DIFFICULTY RATERS

TASKS		TASK DIFFICULTY	PERCENT OF FIRST ENLISTMENT PERSONNEL PERFORMING (N=495)	PERCENT OF DAFSC 304X0 PERSONNEL PERFORMING (N=996)
U706	ADJUST FIBEROPTIC SYSTEM COMPONENTS	7.53	*	*
U741	ISOLATE MALFUNCTIONS IN FIBEROPTIC SYSTEMS	7.21	*	*
A8	DRAFT BUDGET OR FINANCIAL REQUIREMENTS	7.11	*	7.0
D101	DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	7.03	1.4	2.9
O509	ISOLATE MALFUNCTIONS IN COMMANDO ESCORT CONSOLES	6.95	*	*
R605	ISOLATE MALFUNCTIONS IN DIGITAL TO BPSK MODEMS	6.94	*	*
K297	ISOLATE MALFUNCTIONS IN PHASE CORRELATORS	6.93	3.6	3.6
T682	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM TELEVISION CAMERAS	6.90	8.1	6.1
T665	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM CONTROL POWER SUPPLIES	6.78	7.7	6.5
U691	ADJUST ATOMIC FREQUENCY STANDARD COMPONENTS	6.76	3.4	3.7
R606	ISOLATE MALFUNCTIONS IN DIGITAL TO QPSK MODEMS	6.71	*	*
K279	ADJUST PARAMETRIC OR LOW NOISE AMPLIFIER COMPONENTS	6.70	19.2	16.6
M451	ISOLATE MALFUNCTIONS IN TUBE TYPE PULSE CODED MODULATION MULTIPLEXERS	6.69	*	*
M439	ISOLATE MALFUNCTIONS IN SOLID STATE PULSE CODED MODULATION MULTIPLEXERS	6.67	3.4	3.1
C85	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	6.67	1.2	8.5
T666	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM DIGITAL DATA RECEIVERS	6.66	7.3	6.4
M453	ISOLATE MALFUNCTIONS IN TUBE TYPE PULSE POSITION MODULATION MULTIPLEXERS	6.65	*	1.0
A9	DRAFT SUPPLEMENTS OR CHANGES TO DIRECTIVES	6.64	1.8	11.6
T679	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM SENSOR MULTIPLEXERS	6.61	6.1	5.5
T680	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM SENSOR DATA DECODERS	6.60	7.1	6.1
K296	ISOLATE MALFUNCTIONS IN PARAMETRIC OR LOW NOISE AMPLIFIERS	6.57	12.1	12.1
B52	SUPERVISE CIVILIAN PERSONNEL	6.57	*	2.2
U739	ISOLATE MALFUNCTIONS IN CRYPTO EQUIPMENT	6.56	*	*
M441	ISOLATE MALFUNCTIONS IN SOLID STATE PULSE POSITION MODULATION MULTIPLEXERS	6.56	2.0	1.6
M452	ISOLATE MALFUNCTIONS IN TUBE TYPE PULSE DURATION MODULATION MULTIPLEXERS	6.55	*	*
T669	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM LASER FENCE SENSOR SYSTEMS	6.55	*	*
O518	ISOLATE MALFUNCTIONS IN SATELLITE CONTROL CONSOLES	6.53	*	*
T683	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM TELEVISION MONITORS	6.50	7.3	5.7
T685	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM TELEVISION SWITCHING MATRIX UNITS	6.49	6.3	4.9

*DENOTES LESS THAN ONE PERCENT

TABLE 30

REPRESENTATIVE TASKS RATED ABOUT AVERAGE IN DIFFICULTY BY DAFSC 304X0 PERSONNEL

TASKS		TASK DIFFICULTY	PERCENT OF FIRST ENLISTMENT PERSONNEL PERFORMING (N=495)	PERCENT OF DAFSC 304X0 PERSONNEL PERFORMING (N=996)
D95	CONDUCT UPGRADE TRAINING	5.04	7.7	22.6
W846	MAINTAIN SITE AIR CONDITIONING SYSTEMS	5.04	2.0	2.0
K276	ADJUST HF RECEIVE RF AMPLIFIER COMPONENTS	5.04	23.8	20.2
U718	ADJUST RADIO FREQUENCY (RF) DISTRIBUTION AMPLIFIER COMPONENTS	5.04	4.8	4.0
N476	ISOLATE MALFUNCTIONS IN POLAR DC POWER SUPPLIES	5.03	10.3	10.4
I199	ISOLATE MALFUNCTIONS IN COMMAND AND CONTROL HF COMMUNICATION PECULIAR TEST EQUIPMENT	5.03	1.8	1.8
J260	ISOLATE MALFUNCTIONS IN RHOMBIC ANTENNAS	5.03	*	*
L342	ADJUST DRIVER, INTERMEDIATE POWER, OR TRANSMIT INTERFACILITY LINK AMPLIFIER COMPONENTS	5.02	14.3	15.5
L392	ISOLATE MALFUNCTIONS IN SOLID STATE POWER MONITORS	5.02	14.1	14.4
M422	ADJUST IN-BAND SIGNALING AND CONTROL CIRCUIT COMPONENTS	5.02	25.3	26.8
R610	PERFORM PMIs ON DC TO RF FSK MODEMS	5.01	1.4	1.4
J252	ISOLATE MALFUNCTIONS IN DISCONE ANTENNAS	5.01	*	*
J236	ADJUST LOG PERIODIC (LP) ANTENNA COMPONENTS	5.01	*	*
R611	PERFORM PMIs ON DC TO RF PSK MODEMS	5.01	*	*
J241	ADJUST SATELLITE TRACKING ANTENNA ROTATING EQUIPMENT COMPONENTS	5.00	*	*
O515	ISOLATE MALFUNCTIONS IN LEVEL SELECT CIRCUITS	5.00	1.2	1.0
N470	ISOLATE MALFUNCTIONS IN DC POWER SUPPLY LINE ISOLATION ASSEMBLIES OR BATTERY ISOLATION RELAY ASSEMBLIES	5.00	10.5	10.0
M456	ISOLATE MALFUNCTIONS IN TWO WIRE/FOUR CONVERSION AND TERMINATION CIRCUITS	4.99	23.0	23.8
O516	ISOLATE MALFUNCTIONS IN MICROPHONE AMPLIFIER CIRCUITS	4.99	*	1.5
U689	ADJUST AMPLITUDE OR LINE EQUALIZER COMPONENTS	4.98	18.8	16.7
D98	DETERMINE OJT TRAINING REQUIREMENTS	4.98	2.6	17.6
C76	EVALUATE SECURITY PROGRAMS	4.97	1.4	6.5
D89	CONDUCT OJT	4.96	22.0	38.5
M417	ADJUST E- AND -M SIGNALING AND CONTROL CIRCUIT COMPONENTS	4.96	28.9	25.9
L347	ADJUST HIGH FREQUENCY (HF) POWER AMPLIFIER COMPONENTS	4.96	10.3	9.3
N475	ISOLATE MALFUNCTIONS IN NEUTRAL DC POWER SUPPLIES	4.96	8.7	8.2
U699	ADJUST BUFFER OR ISOLATION AMPLIFIER COMPONENTS	4.95	17.0	13.8
M450	ISOLATE MALFUNCTIONS IN TUBE TYPE PILOT TONE AMPLIFIERS	4.95	5.5	5.9

*DENOTES LESS THAN ONE PERCENT

TABLE 31

REPRESENTATIVE TASKS RATED THE LEAST DIFFICULT BY DAFSC 304X0 RATERS

TASKS		TASK DIFFICULTY	PERCENT OF FIRST ENLISTMENT PERSONNEL PERFORMING (N=495)	PERCENT OF DAFSC 304X0 PERSONNEL PERFORMING (N=996)
W861	REMOVE OR REPLACE RADOME PANELS	2.64	1.8	1.7
0534	PERFORM PMIs ON SCOPE CONTROL CONSOLES	2.64	*	*
0535	PERFORM PMIs ON SCOPE PATTERN CONSOLES	2.64	*	*
W842	MAINTAIN HOUSEHOLD FUEL LINES	2.63	*	1.4
W859	PERFORM SITE SECURITY DUTIES	2.62	25.5	21.7
W858	PERFORM OPERATOR MAINTENANCE ON POWERED VEHICLES	2.58	16.4	18.6
I209	POSITION SAFETY EQUIPMENT	2.55	19.6	20.9
W839	LUBRICATE VAN OR TRAILER CHASSIS	2.54	10.1	9.4
V834	SKIRT VANS	2.45	*	1.2
W855	PERFORM OPERATOR MAINTENANCE ON HAND OR AUTOMATIC WEAPONS	2.42	8.1	7.5
V832	LOAD OR UNLOAD SUPPORT EQUPMENT ON TRAINS	2.41	*	*
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	2.38	50.5	51.4
W854	PERFORM OPERATOR MAINTENANCE ON GROUND SUPPORT EQUIPMENT	2.31	7.7	9.7
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	2.28	35.6	42.2
D109	SCORE TESTS	2.26	2.6	7.7
A25	SCHEDULE LEAVES OR PASSES	2.25	2.6	17.7
I210	REMOVE OR REPLACE DESICCANTS	2.08	11.9	1[illegible].0
V813	CONSTRUCT SITE LATRINES	2.04	4.4	4.[illegible]
F138	MAINTAIN OFFICE SUPPLIES	1.94	3.6	12.9
I192	CRATE OR UNCRATE COMPONENTS OR MODULES	1.94	37.6	32.9
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	1.77	2.0	14.8
W837	CLEAR MOBILITY WORK AREAS	1.73	16.6	13.3
W853	PAINT EQUIPMENT OR FACILITIES	1.59	48.7	43.6
W836	CLEAN MAINTENANCE WORK AREAS	1.52	76.0	64.5

*DENOTES LESS THAN ONE PERCENT

ANALYSIS OF WRITE-IN COMMENTS

Respondents are invited to write in any comments relative to their job in back of their job inventory booklet. In this survey, a fairly small amount of write-in comments addressed a range of career ladder irritants. Generally, these comments involve job control and personnel misutilization.

Although there have been a number of proposals to create a separate AFSC for job control, none have yet been implemented. It appears that in the Communications-Electronics career field (30XXX), there would be enough job control slots to justify a separate specialty. The philosophy of sending personnel to fairly lengthy technical schools and then utilizing them in job control seems to be a waste of training dollars. In addition, these personnel are typically the least satisfied in the career ladder. Specific comments about job control include:

"In job control (maintenance support), there isn't really that much technical knowledge required or work to do except answering the phone and knowing how to use a pencil or pen."

"Sort of like a secretary."

"More information should be gathered on what job controllers do and go through, for this is one job that is not easy."

"I am totally unsatisfied in my job and hate it with a passion. I'm very disappointed in all areas of the AF."

One comment reflected some dissatisfaction with personnel misutilization at an AN/TRC-97A location. This comment is as follows:

"I find my job very interesting, when I get to do my job, which is not very often. Our shop is very overcrowded and most of the work done is to train new guys which is good, but, after you're trained, what good is it if you can't use it."

Although these comments point to some specific irritants in the career ladder, overall, the number of write-in comments was relatively low (roughly one percent). In other words, some of these comments may reflect individual differences rather than the feelings of the total career ladder.

COMPARISON TO PREVIOUS SURVEY

The results of this 304X0 survey were compared to those of a previous Occupational Survey Report, AFPT 90-304-196, dated December 1975. This analysis can help identify changes in the career ladder due to new missions, changing management policies, new operational equipment, etc. Generally, the two studies reported relatively consistent findings, with differences appearing in the following areas:

A thorough analysis of the tasks and jobs performed by 304X0 personnel reveals that on the whole, the career ladder has remained relatively stable over the last six years. However, some jobs and tasks which were performed in 1975 were not identified in this report, and some of the jobs identified in the 1981 CAREER LADDER STRUCTURE section were not identified in 1975. Table 32 lists those jobs identified in 1975 and the comparable jobs of 1981. This table reveals that the Chief of Maintenance Office Personnel job reported in 1975 was not identified in 1981. This is probably due to the fact that a high percentage of 9-skill level personnel were identified in this job, and these personnel were not sampled for this study. BISS Personnel were not identified in 1975, primarily because security system maintenance is a new mission the 304X0 specialty has assumed since that time. Two other 1981 job groups, Supply Personnel and Limited Experience QC Personnel, are fairly small (both consist of less than 10 304X0 incumbents) and consist of personnel either just getting on the job or performing a variation of a job control function. Overall, the biggest change in the career ladder, as far as the types of jobs performed, has been the addition of BISS to the specialty.

Table 33 presents the job satisfaction trends that have occurred between 1975 and 1981. Overall, first-term (1-48 months TAFMS) job satisfaction data has changed little over the last six years. Some dramatic differences have occurred with some of the job satisfaction indices noted for second enlistment (49-96 months TAFMS) personnel between 1975 and 1981. Probably the biggest difference occurs with reenlistment intentions, with 60 percent of the 1975 second-term respondents planning to reenlist, while only 42 percent of similar 1981 respondents report having the same intentions. Finally, when examining the job satisfaction data for career (97+ months TAFMS) personnel, slightly lower percentages of 1981 personnel find their job interesting, perceive their job utilizes their talents and training, and plan to reenlist than similar 1975 personnel.

TABLE 32

A COMPARISON OF THE MAJOR JOB GROUPS IDENTIFIED IN THE 1975 AND 1981 OSRs

1975 CLUSTERS AND INDEPENDENT JOB TYPES	1981 CLUSTERS AND INDEPENDENT JOB TYPES
MICROWAVE/TROPOSCATTER AND RADIO RELAY SPECIALISTS AND TECHNICIANS	RADIO RELAY EQUIPMENT PERSONNEL SENIOR RADIO REPAIRMEN COMMUNICATIONS RELAY PERSONNEL JR RADIO RELAY EQUIPMENT PERSONNEL
RADIO RELAY EQUIPMENT REPAIRMEN	JR WIDEBAND COMMUNICATIONS REPAIRMEN
SUPERVISORS	QC PERSONNEL FIRSTLINE MAINTENANCE SUPERVISORS NCOICs, JOB CONTROL RADIO MAINTENANCE SUPERVISORS RESIDENT TRAINING SUPERVISORS TOOL CRIB SUPERVISORS
CHIEF OF MAINTENANCE OFFICE PERSONNEL	--
RESIDENT COURSE TRAINING *INSTRUCTORS*	RESIDENT TECHNICAL SCHOOL INSTRUCTORS INSTRUCTORS AND MAINTENANCE PERSONNEL
E&I TEAM MEMBERS	MOBILE E&I PERSONNEL FIXED E&I PERSONNEL
JOB CONTROLLERS AND MAINT CONTROL TECHNICIANS	JOB CONTROLLERS PLANS AND SCHEDULING PERSONNEL
--	SUPPLY PERSONNEL
--	LIMITED EXPERIENCE QC PERSONNEL
--	BISS PERSONNEL

TABLE 33

A COMPARISON OF JOB SATISFACTION DATA FOR VARIOUS ENLISTMENT GROUPS
IN THE 1975 AND 1981 OSRs
(PERCENT MEMBERS RESPONDING)

	FIRST-TERM (1-48 MONTHS TAFMS)		SECOND-TERM (49-96 MONTHS TAFMS)		CAREER (97+ MONTHS TAFMS)	
	1975	1981	1975	1981	1975	1981
FINDS JOB INTERESTING:	64	65	68	60	77	72
UTILIZES TALENTS WELL*:	71	71	72	73	84	78
UTILIZES TRAINING WELL*:	71	66	72	66	84	75
INTENDS TO REENLIST:	32	35	60	42	65	57

*PERCEIVED UTILIZATION OF TALENTS AND TRAINING WAS A COMBINED QUESTION IN 1975.

IMPLICATIONS

A review of the types of jobs performed by DAFSC 304X0 personnel reveal these respondents are fairly diverse and perform a number of different types of jobs. Many of the technical jobs performed primarily concerned the different types of wideband communication equipment maintained, such as AN/TRC-97A Repairmen or AN/FRC-96/97 Repairmen. In addition to the different types of receivers or transmitters, 304X0 personnel were also found to be maintaining multiplexers, BISS equipment, mobile communications equipment, or installing wideband communications equipment. A number of non-maintenance oriented jobs are also performed by 304X0 personnel, and these primarily involve management, training, or administration. One of these types of jobs, Job Controllers, should be of particular interest to 304X0 management personnel. Several years ago additional CONUS slots were created to help alleviate a URI condition that still exists in the 304X0 specialty. However, when looking at the job satisfaction indicators of first-termers in this job versus those performing a maintenance job, the job control personnel are substantially less satisfied than their maintenance counterparts. The same situation occurs with the two E&I groups identified, with a majority of these incumbents stationed in CONUS but with these incumbents also having the lowest overall job satisfaction of all major job groups. If the 304X0 specialty is having a serious problem with retention, it should reexamine the philosophy of having 304X0 personnel performing job control or E&I type jobs. Since a number of studies have recently been accomplished over the 30XXX career field (303X1, 303X2, 303X3, 304X0, 304X4, 304X6, 307X0, 308X0, and soon 304X1, 306X0, 306X1, and 306X2), it has become painfully evident that job control and E&I jobs are among the most dissatisfying and probably constitute a waste of training in the 30XXX career field. There appears to be quite a few of these types of slots throughout the 30XXX career field, and it seems like the career field would overall be better off with a separate specialty for job control and E&I rather than using personnel trained to do an electronics maintenance job.

APPENDIX A

Job Type Descriptions

Listed below are brief descriptions of the job types identified in the Wideband Communications Equipment CAREER LADDER STRUCTURE section. Generally, the clusters all appear to be fairly heterogeneous, with a variety of related jobs identified in each cluster. As with the CAREER LADDER STRUCTURE section, the data in Appendix A is presented in two ways. First, a very brief narrative description is provided for each job type. Second, duty, background, and job satisfaction tables are provided so that easy comparisons can be made between the job types in any one cluster. (For a further explanation of the job types identified, see the CAREER LADDER STRUCTURE section of this report).

Radio Relay Equipment Personnel

This is a fairly heterogeneous cluster of eight maintenance oriented job types. A number of differentiating factors can be identified to distinguish between the job types, some of which include the average number of tasks performed, the type of equipment maintained, and the percentage of time spent on supervisory functions. Multiplexer Site Repairmen spend 17 percent of their job time maintaining voice frequency multiplexers, and 93 percent maintain the AN/UCC-4. While these incumbents maintain a variety of receivers and transmitters, they tend to concentrate on performing multiplexer maintenance tasks. One hundred and four respondents are in the AN/TRC-97A Repairmen job type, which makes it the largest of the eight job types in this cluster. As the title indicates, these personnel maintain the AN/TRC-97A, and it is interesting to note only 49 percent are located overseas. As their job type title indicates, AN/FRC-96/97 Repairmen maintain the AN/FRC-96/97, but in addition, report maintaining the AN/FRC-127. It is interesting to note that these personnel are relatively satisfied, with 82 percent finding their job interesting and 91 percent perceiving their job utilizes their training at least fairly well. AN/FRA-90 Repairmen maintain the AN-FRA-90 and AN/FRC-109 wideband communications systems. It is interesting to note that 72 percent are in their first enlistment, and these incumbents reported spending 12 percent of their job time maintaining teletype multiplexers. AN/FRC-155-165 Series Repairmen maintain a wide variety of wideband communications equipment, with the highest percentage of these respondents maintaining the AN/FRC-155-165 series equipment. These incumbents are the most senior of all job types, averaging 142 months TAFMS, and only 20 percent report being in their first enlistment. OL-C/D Personnel are working primarily in England and are responsible for maintaining the microwave equipment associated with the airborne command post the US maintains overseas. These incumbents are among the least satisfied, with only 35 percent finding their job interesting, and only 46 percent perceive their job utilizes their training at least fairly well. Wideband Maintenance Supervisors appear to be firstline supervisors at a variety of overseas wideband communications locations. These personnel are also fairly dissatisfied, with only 40 percent finding their job interesting or planning to reenlist. Finally, Radio Relay OJT Personnel are primarily working at AN/TRC-97A locations and are responsible for conducting the OJT functions at those sites. These incumbents seem to be very satisfied with their job, with 100 percent finding their job interesting and 54 percent planning to reenlist. (For more information about these job types, see Tables I, II, and III).

Junior Radio Relay Equipment Repairmen

There are five job types in this cluster, and these job types seem to be differentiated by a number of factors, such as the average number of tasks performed, the type of wideband equipment maintained, and the amount of time spent performing support functions or maintaining receivers. Multiplexer Repairmen spend 31 percent of their job time maintaining various types of multiplexers, such as the AN/UCC-4 and Siemens VZ-12/120 FU. Forty-one percent of AN/TSC-88 Repairmen hold DAFSC 304X6. The DAFSC 304X0 personnel in this job type seem to be responsible for maintaining the AN/TRC-97A and associated equipment. These 304X0/304X6 personnel seem fairly satisfied with their job, with 75 percent finding their job interesting and 92 percent perceiving their talents are utilized at least fairly well. Forty-four percent of AN/MRC-117 Repairmen report maintaining the AN/MRC-117. These incumbents spend 21 percent of their job time performing support functions, and only 44 percent find their job interesting. Microwave Maintenance Personnel are maintaining a variety of wideband communication and related equipment, with the highest percentages of these personnel maintaining the AN/FCC-32 or AN/FRC-96/97. Ninety-three percent of these incumbents are located overseas, and only 50 percent are in their first enlistment. Mobile Radio Relay Repairmen maintain the wideband communication equipment associated with tactical communication units and Combat Communication Groups. Only 25 percent of these incumbents are stationed overseas, and 93 percent are in their first enlistment. (For more information about these job types, see Tables IV, V, and VI).

Quality Control Personnel

Personnel from the 304X0, 304X4, and 304X6 specialties can be found in the job types in this cluster. The average number of tasks performed, the level assigned, and the type of mission evaluated appear to be the biggest differentiators of the personnel in these job types. Senior Quality Control Personnel appear to be personnel experienced in quality control and are located at a variety of wideband, ground radio, and space communication system locations. These personnel perform an average of 36 tasks, and 62 percent plan to reenlist. Fifty percent of Headquarters Level Quality Control Personnel are working in a headquarters staff position. These respondents are among the most senior, averaging 202 months TAFMS and 89 percent find their job interesting. Junior Quality Control Personnel appear to be personnel who have recently been assigned to a quality control position. They perform a low average number of tasks (13) and only 60 percent find their job interesting. Finally Engineering and Installation Quality Control Personnel are responsible for insuring that the installation or removal of equipment is done correctly. These personnel are relatively junior (average TAFMS of 153 months) and only 40 percent believe their training is utilized at least fairly well. (For more information about these job types see Tables VII, VIII, and IX).

Firstline Maintenance Supervisors

As with Quality Control Personnel, 304X0, 304X4, and 304X6 personnel can also be found in these three job types. The differentiating factors for the three job types appear to be the type of unit assigned, the average number of tasks performed, and the types of equipment maintained. Ground

Radio Firstline Supervisors are working at a number of fixed ground radio locations and roughly divide their time between supervisory and maintenance duties. These incumbents maintain a variety of ground radio equipment, and it is interesting to note that 65 percent plan to reenlist. Wideband Firstline Supervisors are primarily working at fixed wideband communications sites overseas. These personnel also roughly divide their time between supervisory and maintenance duties, and perform an average of 178 tasks. In addition, these incumbents are fairly satisfied, with 62 percent planning to reenlist and 82 percent finding their job interesting. Mobility Firstline Supervisors are primarily 304X6 personnel working at mobile or tactical communications units. These incumbents perform a very high average number of tasks (237) and 53 percent are located overseas. These incumbents are relatively dissatisfied, with only 67 percent finding their job interesting and only 47 percent plan to reenlist. (For more information about these types see Tables X, XI, and XII).

Radio Maintenance Supervisors

The two job types in this cluster are also made up of 304X0, 304X4, and 304X6 personnel. The average number of tasks performed, the time spent performing supervisory duties, and the average months TAFMS seem to be the biggest discriminators between these two groups. Site Superintendents spend about 90 percent of their job time on supervisory duties, and average 240 months TAFMS. Fifty-eight of these incumbents are located overseas, and generally, these incumbents perform more of a management job than the other job type in this cluster. In addition, these incumbents seem to be very satisfied with their job, with 84 percent finding their job interesting and 95 percent perceiving their job utilized their talents at least fairly well. Workcenter Supervisors perform an average of 87 tasks and appear to be the middle level supervisors at a variety of ground radio, wideband, and space communication system workcenters. These incumbents only average 204 months TAFMS, and 78 percent find their job interesting. (For more information about these job types see Tables XIII, XIV, and XV).

TABLE I

RELATIVE PERCENT TIME SPENT ON DUTIES BY RADIO RELAY EQUIPMENT PERSONNEL JOB TYPES

DUTIES	MULTIPLEXER SITE REP (GRP895, N=29)	AN/TRC-97A REP (GRP838, N=104)	AN/TRC-96/97 REP (GRP643, N=83)	AN/FRC-90 REP (GRP609, N=18)	AN/FRA-155-165 (GRP637, N=10)	OL-C/D PERSONNEL (GRP843, N=13)	WIDEBAND MAINT. SUPVS (GRP391, N=10)	RADIO RELAY OJT PERSONNEL (GRP533, N=11)
ORGANIZING AND PLANNING	1	1	1	*	1	1	2	3
DIRECTING AND IMPLEMENTING	1	2	2	1	1	2	3	6
INSPECTING AND EVALUATING		1	2	*	2		2	2
TRAINING	1	2	2	1	5	2	3	9
PREPARING AND MAINTAINING FORMS, RECORDS, AND REPORTS	1	1	1	3	1	3	6	4
PERFORMING SUPPLY FUNCTIONS	1	1	1	2	1	2	2	4
PERFORMING EQUIPMENT OPERATION FUNCTIONS	6	7	6	7	4	15	11	7
PERFORMING SATELLITE OPERATION FUNCTIONS	*	*	*	*	*	*	*	*
PERFORMING GENERAL MAINTENANCE FUNCTIONS	8	9	10	7	6	11	13	10
MAINTAINING ANTENNA SYSTEMS	*	3	1	*	1	1	*	*
MAINTAINING RECEIVERS TO INCLUDE RECEIVE PORTIONS OF TRANSCEIVERS	20	18	20	15	39	7	11	11
MAINTAINING TRANSMITTERS TO INCLUDE TRANSMIT PORTION OF TRANSCEIVERS	11	11	16	9	18	8	10	7
MAINTAINING VOICE FREQUENCY MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	17	9	9	14	7	12	10	13
MAINTAINING TELETYPE MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	2	4	2	12	*	*	1	6
MAINTAINING COMMUNICATIONS ON CONTROL CONSOLES	*	*	*	*	*	*	*	*
MAINTAINING AUDIO OR FACSIMILE EQUIPMENT	*	*	*	*	*	1	1	*
MAINTAINING SCOPE CONTROL OR UNIVERSAL RADIO GROUP EQUIPMENT	*	*	*	*	*	*	*	*
MAINTAINING MODEMS	*	*	*	*	*	*	*	*
MAINTAINING TRACKING SYSTEMS	*	*	*	*	*	*	*	*
MAINTAINING BASE AND INSTALLATION SECURITY SYSTEMS	*	*	*	*	*	3	6	1
MAINTAINING COMMON OR MISCELLANEOUS SUBASSEMBLIES	20	13	14	15	6	16	7	4
PERFORMING SITE INSTALLATION OR MOVING FUNCTIONS	*	3	*	*	1	*	*	1
PERFORMING SUPPORT FUNCTIONS	3	6	2	2		8	5	4

* DENOTES LESS THAN ONE PERCENT

TABLE II

BACKGROUND INFORMATION FOR RADIO RELAY EQUIPMENT PERSONNEL JOB TYPES

	MULTIPLEXER SITE REP	AN/TRC-97A REP	AN/TRC-96/97 REP	AN/FRC-90 REP	AN/FRA-155-165	OL-C/D PERSONNEL	WIDEBAND MAINT SUPVS	RADIO RELAY OJT PERSONNEL
AVERAGE NUMBER OF TASKS PERFORMED:	133	147	144	112	131	101	119	83
JOB DIFFICULTY INDEX:	18.2	18.3	18.7	16.0	19.6	13.7	15.4	13.1
AVERAGE PAYGRADE:	E-4	E-4	E-4/E-5	E-4	E-6	E-4	E-4	E-5
PERCENT LOCATED OVERSEAS:	93%	49%	94%	61%	50%	92%	100%	69%
DAFSC								
30430	20%	16%	12%	11%	-	39%	10%	-
30450	69%	69%	58%	78%	30%	54%	90%	55%
30470	7%	12%	30%	11%	50%	7%	-	36%
304X0	-	-	-	-	10%	-	-	9%
304X4	3%	-	-	-	-	-	-	-
OTHER	1%	3%	-	-	10%	-	-	-
AVERAGE NUMBER OF PERSONNEL SUPERVISED:	-	1	1	-	-	-	-	2
AVERAGE MONTHS TAFMS:	50	60	90	54	142	57	51	100
PERCENT IN FIRST ENLISTMENT:	68%	61%	40%	72%	20%	62%	70%	18%
PERCENT MAINTAINING THE FOLLOWING EQUIPMENT:								
AN/FRA-90	-	1%	18%	78%	20%	8%	10%	9%
AN/FRC-109	14%	-	-	28%	30%	-	-	9%
AN/FRC-127	7%	1%	46%	11%	10%	8%	-	18%
AN/FRC-155-165	48%	1%	15%	22%	50%	8%	-	9%
AN/FRC-167	59%	-	-	6%	-	7%	-	9%
AN/FRC-168	38%	-	-	6%	-	-	-	9%
AN/TRC-97A	7%	87%	9%	-	30%	-	-	55%
AN/TRC-150	28%	1%	9%	-	30%	8%	-	-
SIEMENS 120/8000	35%	2%	3%	6%	20%	-	10%	9%
AN/FRC-96/97	3%	1%	70%	11%	20%	-	10%	9%
AN/FCC-17 FAMILY	17%	1%	12%	-	30%	39%	30%	18%
AN/FCC-32	3%	1%	67%	22%	30%	8%	-	18%
AN/TCC-7	-	1%	18%	17%	30%	-	40%	9%
AN/UCC-4	93%	14%	21%	28%	50%	31%	-	27%
SIEMENS VZ-12/120 FU	31%	2%	15%	28%	20%	8%	10%	27%

TABLE III

JOB SATISFACTION AND RELATED DATA FOR RADIO RELAY EQUIPMENT PERSONNEL JOB TYPES
(PERCENT MEMBERS RESPONDING)*

	MULTIPLEXER SITE REP	AN/TRC-97A REP	AN/TRC-96/97 REP	AN/FRC-90 REP	AN/FRA-155-165	OL-C/D PERSONNEL	WIDEBAND MAINT SUPVS	RADIO RELAY O PERSONN
I FIND MY JOB:								
DULL	7	18	6	11		34	50	-
SO-SO	10	18	9	17	10	31	10	-
INTERESTING	83	63	82	72	80	35	40	100
MY JOB UTILIZES MY TALENTS:								
NOT AT ALL TO VERY LITTLE	14	22	9	11	-	39	60	18
FAIRLY WELL OR BETTER	86	78	88	89	90	61	40	82
MY JOB UTILIZES MY TRAINING:								
NOT AT ALL TO VERY LITTLE	3	16	6	11	-	46	40	27
FAIRLY WELL OR BETTER	97	83	91	89	90	46	60	73
I PLAN TO REENLIST:								
NO, PLANNING TO RETIRE	-	2	3	6	20	-	-	-
NO OR PROBABLY NO	66	58	49	50	40	54	60	46
YES OR PROBABLY YES	34	40	48	44	40	46	40	54

*NOTE: THESE COLUMNS MAY NOT ADD TO 100 PERCENT DUE TO "NO RESPONSE"

TABLE IV

RELATIVE PERCENT TIME SPENT ON DUTIES BY JR. RADIO RELAY EQUIPMENT REPAIRMEN JOB TYPES

DUTY	MULTIPLEXER REP (GRP283, N=12)	AN/TSC-88 REP (GRP337, N=12)	AN/MRC-117 REP (GRP379, N=16)	MICROWAVE MAINTENANCE PERSONNEL (GRP412, N=14)	MOBILE RADIO RELAY REP (GRP225, N=48)
ORGANIZING AND PLANNING	*	1	1	1	*
DIRECTING AND IMPLEMENTING	*	3	2	1	1
INSPECTING AND EVALUATING	*	1	1	*	*
TRAINING	*	2	*	2	*
PREPARING AND MAINTAINING FORMS, RECORDS, AND REPORTS	3	10	6	2	2
PERFORMING SUPPLY FUNCTIONS	1	3	3	1	1
PERFORMING EQUIPMENT OPERATION FUNCTIONS	17	32	16	15	15
PERFORMING SATELLITE OPERATION FUNCTIONS	*	3	*	*	*
PERFORMING GENERAL MAINTENANCE FUNCTIONS	11	15	10	12	19
MAINTAINING ANTENNA SYSTEMS	*	*	*	1	3
MAINTAINING RECEIVERS TO INCLUDE RECEIVER PORTION OF TRANSCEIVERS	8	4	11	26	15
MAINTAINING TRANSMITTERS TO INCLUDE TRANSMIT PORTION OF TRANSCEIVERS	5	3	8	6	6
MAINTAINING VOICE FREQUENCY MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	29	1	3	4	8
MAINTAINING TELETYPE MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	2	*	1	*	2
MAINTAINING COMMUNICATION OR CONTROL CONSOLES	*	1	*	*	*
MAINTAINING AUDIO OR FACSMILIE EQUIPMENT	*	*	*	*	*
MAINTAINING SCOPE CONTROL OR UNIVERSAL RADIO GROUP EQUIPMENT	*	*	*	*	*
MAINTAINING MODEMS	*	*	*	*	*
MAINTAINING TRACKING SYSTEMS	*	*	*	*	*
MAINTAINING BASE AND INSTALLATION SECURITY SYSTEMS	*	*	*	*	*
MAINTAINING COMMON OR MISCELLANEOUS SUBASSEMBLIES	10	5	8	10	6
PERFORMING SITE INSTALLATION OR MOVING FUNCTIONS	1	*	*	*	4
PERFORMING SUPPORT FUNCTIONS	6	5	21	10	9

* DENOTES LESS THAN ONE PERCENT

TABLE V

BACKGROUND INFORMATION FOR JR. RADIO RELAY EQUIPMENT REPAIRMEN JOB TYPES

	MULTIPLEXER REP	AN/TSC-88 REP	AN/MRC-117 REP	MICROWAVE MAINTENANCE PERSONNEL	MOBILE RADIO RELAY REP
AVERAGE NUMBER OF TASKS PERFORMED:	44	41	55	63	59
JOB DIFFICULTY INDEX:	9.1	7.1	8.0	10.9	9.7
AVERAGE PAYGRADE:	E-3/E-4	E-4	E-4	E-4	E-3
PERCENT LOCATED OVERSEAS:	75%	75%	100%	93%	25%
DAFSC					
30430	25%	17%	13%	29%	54%
30450	75%	42%	87%	64%	31%
30470	-	-	-	-	-
304X4	-	-	-	-	2
304X6	-	41%	-	-	6%
OTHER	-	-	-	7%	7%
AVERAGE NUMBER OF PERSONNEL SUPERVISED:	-	-	-	-	-
AVERAGE MONTHS TAFMS:	40	46	39	53	26
PERCENT IN FIRST ENLISTMENT:	83%	66%	75%	50%	93%
PERCENT MAINTAINING THE FOLLOWING EQUIPMENT:					
AN/TSC-88	-	25%	-	7%	4%
AN/FRC-153	-	8%	25%	7%	2%
KWM-2/2A	-	17%	31%	7%	-
AN/FRC-127	-	17%	25%	29%	-
AN/TRC-97A	8%	25%	-	-	56%
SIEMENS-120/8000	17%	-	-	14%	2%
AN/FRC-96/97	-	8%	-	50%	2%
AN/FRC-114	-	-	-	14%	2%
AN/GRR-24	-	-	-	21%	-
AN/GRT-21	-	-	-	29%	-
AN/FCC-32	-	8%	19%	57%	4%
AN/UCC-4	25%	17%	6%	7%	35%
45BC FAMILY	-	-	-	21%	-
SIEMENS VZ-12/120 FU	50%	17%	6%	14%	6%
AN/MRC-117	-	8%	44%	7%	-

TABLE VI

JOB SATISFACTION AND RELATED DATA FOR JR. RADIO RELAY EQUIPMENT REPAIRMEN JOB TYPES
(PERCENT MEMBERS RESPONDING)*

	MULTIPLEXER REP	AN/TSC-88 REP	AN/MRC-117 REP	MICROWAVE MAINTENANCE PERSONNEL	MOBILE RADIO RELAY REP
I FIND MY JOB:					
DULL	8	17	31	21	17
SO-SO	33	8	25	21	29
INTERESTING	59	75	44	51	54
MY JOB UTILIZES MY TALENTS:					
NOT AT ALL TO VERY LITTLE	50	8	50	36	29
FAIRLY WELL OR BETTER	50	92	50	64	71
MY JOB UTILIZES MY TRAINING:					
NOT AT ALL TO VERY LITTLE	33	25	44	36	23
FAIRLY WELL OR BETTER	67	75	56	64	77
I PLAN TO REENLIST:					
NO, PLANNING TO RETIRE	8			7	
NO OR PROBABLY NO	50	67	63	50	67
YES OR PROBABLY YES	42	33	37	43	33

*NOTE: THESE COLUMNS MAY NOT ADD TO 100 PERCENT DUE TO "NO RESPONSE"

TABLE VII

RELATIVE PERCENT TIME SPENT ON DUTIES BY QUALITY CONTROL PERSONNEL JOB TYPES

DUTIES	SR QC PERS (GRP510, N=6)	HQ LEVEL QC PERS (GRP513, N=18)	JR QC PERS (GRP289 N=10)	E&I QC PERS (GRP260 N=10)
ORGANIZING AND PLANNING	14	23	9	20
DIRECTING AND IMPLEMENTING	10	15	8	18
INSPECTING AND EVALUATING	31	37	47	7
TRAINING	8	3	4	2
PREPARING AND MAINTAINING FORMS, RECORDS, AND REPORTS	22	12	18	17
PERFORMING SUPPLY FUNCTIONS	2	2	3	18
PERFORMING EQUIPMENT OPERATION FUNCTIONS	2	*	*	2
PERFORMING SATELLITE OPERATION FUNCTIONS	*	*	*	*
PERFORMING GENERAL MAINTENANCE FUNCTIONS	4	*	2	2
MAINTAINING ANTENNA SYSTEMS	*	*	*	*
MAINTAINING RECEIVERS TO INCLUDE RECEIVE PORTION OF TRANSCEIVERS	*	*	*	1
MAINTAINING TRANSMITTERS TO INCLUDE TRANSMITTER PORTION OF TRANSCEIVERS	*	*	1	*
MAINTAINING VOICE FREQUENCY MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	*	*	*	*
MAINTAINING TELETYPE MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	*	*	*	*
MAINTAINING COMMUNICATION OR CONTROL CONSOLES	*	*	*	*
MAINTAINING AUDIO OR FACSIMILE EQUIPMENT	*	*	*	*
MAINTAINING SCOPE CONTROL OR UNIVERSAL RADIO GROUP EQUIPMENT	*	*	*	*
MAINTAINING MODEMS	*	*	*	*
MAINTAINING TRACKING SYSTEMS	*	*	*	*
MAINTAINING BASE AND INSTALLATION SECURITY SYSTEMS	*	*	*	*
MAINTAINING COMMON OR MISCELLANEOUS	*	*	*	*
PERFORMING SITE INSTALLATION OR MOVING FUNCTIONS	*	*	1	*
PERFORMING SUPPORT FUNCTIONS	1	*	1	6

* DENOTES LESS THAN ONE PERCENT

TABLE VIII

BACKGROUND INFORMATION FOR QUALITY CONTROL PERSONNEL JOB TYPES

	SENIOR QUALITY CONTROL PERSONNEL	HQ LEVEL QUALITY CONTROL PERSONNEL	JUNIOR QUALITY CONTROL PERSONNEL	E&I QUALITY CONTROL PERSONNEL
AVERAGE NUMBER OF TASKS PERFORMED :	36	28	13	43
JOB DIFFICULTY INDEX:	10.5	12.2	9.3	8.8
AVERAGE PAYGRADE:	E-6	E-6,E-7	E-6	E-5,E-6
PERCENT LOCATED OVERSEAS:	38%	28%	20%	50%
DAFSC				
30430	-	-	-	-
30450	7%	-	-	10%
30470	23%	33%	20%	10%
30434	-	-	-	-
30454	13%	-	10%	60%
30474	50%	61%	70%	20%
30436	-	-	-	-
30456	2%	-	-	-
30476	2%	6%	-	-
OTHER	3%	-	-	-
AVERAGE NUMBER OF PERSONNEL SUPERVISED:	1	-	-	-
AVERAGE MONTHS TAFMS:	169	202	178	153
PERCENT IN FIRST ENLISTMENT:	5%	-	10%	10%
PERCENT WORKING IN THE FOLLOWING AREAS:				
E&I UNIT	5%	6%	10%	20%
EVALUATION AND INSPECTION TEAMS	18%	28%	20%	-
HEADQUARTERS STAFF	8%	50%	10%	-
QUALITY CONTROL	75%	28%	70%	10%

TABLE IX

JOB SATISFACTION AND RELATED DATA FOR QUALITY CONTROL PERSONNEL JOB TYPES (PERCENT MEMBERS RESPONDING)

	SENIOR QUALITY CONTROL PERSONNEL	HQ LEVEL QUALITY CONTROL PERSONNEL	JUNIOR QUALITY CONTROL PERSONNEL	E&I QUALITY CONTROL PERSONNEL
I FIND MY JOB:				
DULL	7	11	-	40
SO-SO	10	-	40	-
INTERESTING	81	89	60	60
MY JOB UTILIZES MY TALENTS:				
NOT AT ALL TO VERY LITTLE	8	17	30	40
FAIRLY WELL OR BETTER	90	83	70	60
MY JOB UTILIZES MY TRAINING:				
NOT AT ALL TO VERY LITTLE	17	22	40	60
FAIRLY WELL OR BETTER	83	78	54	40
I PLAN TO REENLIST:				
NO, PLANNING TO RETIRE	23	33	20	20
NO OR PROBABLY NO	15	22	30	30
YES OR PROBABLY YES	62	45	50	50

*NOTE: COLUMNS MAY NOT ADD TO 100 PERCENT DUE TO "NO RESPONSE"

TABLE X

RELATIVE PERCENT TIME SPENT ON DUTIES BY FIRSTLINE MAINTENANCE SUPERVISORS AND RADIO MAINTENANCE SUPERVISORS JOB TYPES

	FIRSTLINE MAINT SUPVs			RADIO MAINT SUPVs	
DUTIES	GROUND RADIO FIRSTLINE SUPVs (GRP559, N=65)	WIDEBAND FIRSTLINE SUPVs (GRP591, N=49)	MOBILITY FIRSTLINE SUPVs (GRP860, N=13)	SITE SUPVs (GRP871, N=19)	WORKCENTER SUPVs (GRP830, N=130)
ORGANIZING AND PLANNING	10	6	9	32	19
DIRECTING AND IMPLEMENTING	11	7	9	24	19
INSPECTING AND EVALUATING	8	5	8	23	19
TRAINING	9	8	8	9	13
PREPARING AND MAINTAINING FORMS, RECORDS, AND REPORTS	6	4	5	6	10
PERFORMING SUPPLY FUNCTIONS	7	6	5	1	7
PERFORMING EQUIPMENT OPERATION FUNCTIONS	3	6	6	*	1
PERFORMING SATELLITE OPERATION FUNCTIONS	*	*	2	*	*
PERFORMING GENERAL MAINTENANCE FUNCTIONS	8	9	7	*	2
MAINTAINING ANTENNA SYSTEMS	1	*	3	*	*
MAINTAINING RECEIVERS TO INCLUDE RECEIVE PORTION OF TRANSCEIVERS	8	11	3	*	*
MAINTAINING TRANSMITTERS TO INCLUDE TRANSMITTER PORTION OF TRANSCEIVERS	7	7	5	*	*
MAINTAINING VOICE FREQUENCY MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	*	7	3	*	*
MAINTAINING TELETYPE MULTIPLEXERS AND ASSOCIATED INTERFACE EQUIPMENT	*	1	1	*	*
MAINTAINING COMMUNICATION OR CONTROL CONSOLES	1	*	*	*	*
MAINTAINING AUDIO OR FACSMILIE EQUIPMENT	2	*	*	*	*
MAINTAINING SCOPE CONTROL OR UNIVERSAL RADIO GROUP EQUIPMENT	*	*	*	*	*
MAINTAINING MODEMS	*	*	1	*	*
MAINTAINING TRACKING SYSTEMS	*	*	1	*	*
MAINTAINING BASE AND INSTALLATION SECURITY SYSTEMS	*	*	*	*	*
MAINTAINING COMMON OR MISCELLANEOUS SUBASSEMBLIES	5	11	3	*	*
PERFORMING SITE INSTALLATION OR MOVING FUNCTIONS	*	*	4	*	*
PERFORMING SUPPORT FUNCTIONS	3	3	6	1	1

* DENOTES LESS THAN ONE PERCENT

TABLE XI

BACKGROUND INFORMATION FOR FIRSTLINE MAINTENANCE SUPERVISORS AND RADIO MAINTENANCE SUPERVISORS JOB TYPES

	FIRSTLINE MAINTENANCE SUPERVISORS			RADIO MAINTENANCE SUPERVISORS	
	GROUND RADIO FIRSTLINE SUPERVISORS	WIDEBAND FIRSTLINE SUPERVISORS	MOBILITY FIRSTLINE SUPERVISORS	SITE SUPERVISORS	WORKCENTER SUPERVISORS
AVERAGE NUMBER OF TASKS PERFORMED:	152	178	237	53	89
JOB DIFFICULTY INDEX:	18.2	20.2	22.9	12.8	14.2
AVERAGE PAYGRADE:	E-6	E-5/E-6	E-5/E-6	E-7	E-6/E-7
PERCENT LOCATED OVERSEAS:	29%	88%	53%	58%	48%
DAFSC					
30430	-	-	-	-	-
30450	-	45%	-	-	-
30470	-	53%	33%	37%	21%
30434	2%	-	7%	-	-
30454	18%	-	7%	-	3%
30474	80%	2%	-	32%	65%
30436	-	-	-	5%	2%
30456	-	-	33%	5%	2%
30476	-	-	20%	16%	5%
OTHER	-	-	-	5%	2%
AVERAGE NUMBER OF PERSONNEL SUPERVISED:	4	3	2	6	5
AVERAGE MONTHS TAFMS:	158	139	155	240	204
PERCENT IN FIRST ENLISTMENT:	3%	4%	14%	-	-
TYPE OF UNIT ASSIGNED:					
MOBILE	3%	4%	13%	11%	7%
FIXED	75%	84%	40%	89%	72%
TACTICAL	22%	4%	40%	-	15%
OTHER	5%	6%	7%	-	7%

TABLE XII

JOB SATISFACTION AND RELATED DATA FOR FIRSTLINE MAINTENANCE SUPERVISORS AND RADIO MAINTENANCE SUPERVISORS JOB TYPES
(PERCENT MEMBERS RESPONDING)*

	FIRSTLINE MAINTENANCE SUPERVISORS			RADIO MAINTENANCE SUPERVISORS	
	GROUND RADIO FIRSTLINE SUPERVISORS	WIDEBAND FIRSTLINE SUPERVISORS	MOBILITY FIRSTLINE SUPERVISORS	SITE SUPERVISORS	WORKCENTER SUPERVISORS
I FIND MY JOB:					
DULL	14	12	13		10
SO-SO	9	4	20	16	12
INTERESTING	75	82	67	84	78
MY JOB UTILIZES MY TALENTS:					
NOT AT ALL TO VERY LITTLE	25	10	33	5	17
FAIRLY WELL OR BETTER	75	88	67	95	83
MY JOB UTILIZES MY TRAINING:					
NOT AT ALL TO VERY LITTLE	22	14	13	16	24
FAIRLY WELL OR BETTER	78	84	87	84	76
I PLAN TO REENLIST:					
NO, PLANNING TO RETIRE	14	18	20	32	37
NO OR PROBABLY NO	21	18	33	16	17
YES OR PROBABLY YES	65	62	47	52	46

*NOTE: COLUMNS MAY NOT ADD TO 100 PERCENT DUE TO "NO RESPONSE"

APPENDIX B

REPRESENTATIVE TASKS PERFORMED BY RADIO RELAY EQUIPMENT PERSONNEL
(GRP267, N=291)

TASKS		PERCENT MEMBERS PERFORMING
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	90
K273	ADJUST AUTOMATIC GAIN CONTROL (AGC) COMPONENTS	87
K281	ADJUST PILOT TONE DETECTOR COMPONENTS	86
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	86
K275	ADJUST FREQUENCY MODULATION (FM) DETECTOR OR DISCRIMINATOR COMPONENTS	86
M427	ALIGN FREQUENCY DIVISION MULTIPLEXERS	85
M424	ADJUST PILOT TONE AMPLIFIER COMPONENTS	85
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	84
W836	CLEAN MAINTENANCE WORK AREAS	84
K284	ADJUST RECEIVE INTERMEDIATE FREQUENCY (IF) AMPLIFIER COMPONENTS	83
K283	ADJUST RECEIVE COMBINER COMPONENTS	83
K335	PERFORM PMIs ON FM RECEIVERS	81
K292	ALIGN FM RECEIVERS	81
L346	ADJUST FM MODULATOR COMPONENTS	79
I206	PERFORM CORROSION CONTROL	77
K278	ADJUST NOISE AMPLIFIER COMPONENTS	76
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICROMINIATURE COMPONENTS USING SOLDERING METHODS	75
M420	ADJUST GROUP OR LEVEL REGULATOR COMPONENTS	75
M458	PERFORM PMIs ON FREQUENCY DIVISION MULTIPLEXERS	73
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	69
L348	ADJUST HIGH VOLTAGE POWER SUPPLY COMPONENTS	69
U696	ADJUST BASEBAND AMPLIFIER COMPONENTS	67
I219	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	67
G152	ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	67
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER SERVICES	66
M426	ADJUST TWO WIRE/FOUR WIRE CONVERSION AND TERMINATION CIRCUIT COMPONENTS	66
M425	ADJUST SYNC OR PILOT GENERATOR COMPONENTS	65
U713	ADJUST LOCAL OSCILLATOR COMPONENTS	65
M419	ADJUST FREQUENCY GENERATOR COMPONENTS	65
W853	PAINT EQUIPMENT OR FACILITIES	64
U694	ADJUST AUTOMATIC FREQUENCY CONTROL (AFC) COMPONENTS	64
K309	ISOLATE MALFUNCTIONS IN SOLID STATE PILOT TONE DETECTORS	64
G162	PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	64
G158	PERFORM BASEBAND SWEEPS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	64
I218	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES, SUCH AS MODULES OR PRINTED CIRCUIT BOARDS, USING SOLDERING METHODS	64

REPRESENTATIVE TASKS PERFORMED BY SENIOR RADIO REPAIRMEN
(GRP663, N=38)

TASKS		PERCENT MEMBERS PERFORMING
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	97
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	97
L348	ADJUST HIGH VOLTAGE POWER SUPPLY COMPONENTS	95
K273	ADJUST AUTOMATIC GAIN CONTROL (AGC) COMPONENTS	95
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICROMINIATURE COMPONENTS USING SOLDERING METHODS	92
K284	ADJUST RECEIVE INTERMEDIATE FREQUENCY (IF) AMPLIFIER COMPONENTS	92
L346	ADJUST FM MODULATOR COMPONENTS	92
U749	ISOLATE MALFUNCTIONS IN PATCH PANELS	92
K275	ADJUST FREQUENCY MODULATION (FM) DETECTOR OR DISCRIMINATOR COMPONENTS	92
U692	ADJUST AUDIO AMPLIFIER COMPONENTS	92
W836	CLEAN MAINTENANCE WORK AREAS	89
I206	PERFORM CORROSION CONTROL	89
I219	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	89
K292	ALIGN FM RECEIVERS	89
I218	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES, SUCH AS MODULES OR PRINTED CIRCUIT BOARDS, USING SOLDERING METHODS	89
K306	*ISOLATE MALFUNCTIONS IN SOLID STATE FM RECEIVERS*	89
I220	REMOVE OR REPLACE MECHANICAL COMPONENTS	89
I196	INSTALL OR REMOVE MOUNTING HARDWARE	87
K282	ADJUST PRESELECTOR COMPONENTS	87
K285	ADJUST SIDEBAND DEMODULATOR OR BALANCED MIXER COMPONENTS	87
U713	ADJUST LOCAL OSCILLATOR COMPONENTS	87
K277	ADJUST LIMITER COMPONENTS	87
L354	ADJUST TRANSMITTER OR EXCITER INTERMEDIATE FREQUENCY (IF) AMPLIFIER COMPONENTS	87
K305	ISOLATE MALFUNCTIONS IN SOLID STATE FM DETECTORS OR DISCRIMINATORS	87
U717	ADJUST PILOT TONE OSCILLATOR COMPONENTS	87
U694	ADJUST AUTOMATIC FREQUENCY CONTROL (AFC) COMPONENTS	87
U712	ADJUST LINE AMPLIFIER COMPONENTS	87
I221	REMOVE OR REPLACE MECHANICAL SUBASSEMBLIES	87
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	84
K311	ISOLATE MALFUNCTIONS IN SOLID STATE RECEIVE IF AMPLIFIERS	84
M424	ADJUST PILOT TONE AMPLIFIER COMPONENTS	84
K335	PERFORM PMIs ON FM RECEIVERS	84
K301	ISOLATE MALFUNCTIONS IN SOLID STATE AGCs	84
K286	ADJUST SQUELCH CIRCUIT COMPONENTS	84
L350	ADJUST POWER MONITORS	84

REPRESENTATIVE TASKS PERFORMED BY COMMUNICATIONS RELAY CENTER PERSONNEL
(GRP504, N=23)

TASKS		PERCENT MEMBERS PERFORMING
N464	ADJUST FREQUENCY SHIFT CONVERTER COMPONENTS	100
N463	ADJUST FREQUENCY SHIFT KEYER COMPONENTS	100
N471	ISOLATE MALFUNCTIONS IN FREQUENCY SHIFT CONVERTERS	100
N472	ISOLATE MALFUNCTIONS IN FREQUENCY SHIFT KEYERS	100
N479	PERFORM PMIs ON TELETYPE MULTIPLEXER ASSOCIATED INTERFACE EQUIPMENT	96
N480	PERFORM PMIs ON TELETYPE MULTIPLEXERS	96
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	91
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	91
N461	ADJUST DIRECT CURRENT (DC) POWER SUPPLY COMPONENTS	91
U746	ISOLATE MALFUNCTIONS IN MAIN DISTRIBUTION FRAMES AND ASSOCIATED WIRING	87
N467	ADJUST TELETYPE MULTIPLEXER COMPONENTS	87
N466	ADJUST LOOP CURRENT CONTROL PANEL COMPONENTS	87
N477	ISOLATE MALFUNCTIONS IN TELETYPE MULTIPLEXERS	83
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICROMINIATURE COMPONENTS USING SOLDERING METHODS	83
U749	ISOLATE MALFUNCTIONS IN PATCH PANELS	83
N469	ISOLATE MALFUNCTIONS IN BALLAST PANELS	83
I219	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	78
U802	PERFORM PMIs ON MAIN DISTRIBUTION FRAMES AND ASSOCIATED WIRING	78
N476	ISOLATE MALFUNCTIONS IN POLAR DC POWER SUPPLIES	78
U689	ADJUST AMPLITUDE OR LINE EQUALIZER COMPONENTS	78
N465	ADJUST HUBBING OR MULTIPARTY EQUIPMENT COMPONENTS	74
U712	ADJUST LINE AMPLIFIER COMPONENTS	74
U745	ISOLATE MALFUNCTIONS IN LINE AMPLIFIERS	74
W836	CLEAN MAINTENANCE WORK AREAS	70
A5	DETERMINE WORK PRIORITIES	70
N474	ISOLATE MALFUNCTIONS IN LOOP CURRENT CONTROL PANELS	70
U692	ADJUST AUDIO AMPLIFIER COMPONENTS	70
M420	ADJUST GROUP OR LEVEL REGULATOR COMPONENTS	70
N473	ISOLATE MALFUNCTIONS IN HUBBING OR MULTIPARTY EQUIPMENT	65
M426	ADJUST TWO WIRE/FOUR WIRE CONVERSION AND TERMINATION CIRCUIT COMPONENTS	65
G163	PERFORM SWITCHOVERS OF EQUIPMENT SUBASSEMBLIES TO REDUNDANT EQUIPMENT	65
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	65
E120	MAKE ENTRIES ON MAINTENANCE FORMS	61
I204	ISOLATE MALFUNCTIONS IN SYSTEMS TO SPECIFIC EQUIPMENT	61

REPRESENTATIVE TASKS PERFORMED BY JUNIOR WIDEBAND COMMUNICATIONS REPAIRMEN
(GRP239, N=27)

TASKS		PERCENT MEMBERS PERFORMING
W836	CLEAN MAINTENANCE WORK AREAS	89
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	85
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	85
I206	PERFORM CORROSION CONTROL	81
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	74
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MIRCO-MINIATURE COMPONENTS USING SOLDERING METHODS	70
E120	MAKE ENTRIES ON MAINTENANCE FORMS	67
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	63
W849	OPERATE HEAVY DUTY VEHICLES, SUCH AS 1 1/2-TON TRUCKS OR 10-TON TRACTOR-TRAILER COMBINATIONS	56
I219	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	56
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	52
K273	ADJUST AUTOMATIC GAIN CONTROL (AGC) COMPONENTS	48
I218	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES, SUCH AS MODULES OR PRINTED CIRCUIT BOARDS, USING SOLDERING METHODS	44
G155	OBSERVE STATUS DISPLAY PANELS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	37
W853	PAINT EQUIPMENT OR FACILITIES	33
I190	CALIBRATE RADIO RELAY PECULIAR TEST EQUIPMENT	33
G162	PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	33
K335	PERFORM PMIs ON FM RECEIVERS	33
K292	ALIGN FM RECEIVERS	33
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	30
I192	CRATE OR UNCRATE COMPONENTS OR MODULES	30
K284	ADJUST RECEIVE INTERMEDIATE FREQUENCY (IF) AMPLIFIER COMPONENTS	26
M426	ADJUST TWO WIRE/FOUR WIRE CONVERSION AND TERMINATION CIRCUIT COMPONENTS	26
G152	ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	26
U694	ADJUST AUTOMATIC FREQUENCY CONTROL (AFC) COMPONENTS	26
M427	ALIGN FREQUENCY DIVISION MULTIPLEXERS	22
L412	PERFORM PMIs ON FM SHF TRANSMITTERS, EXCITERS, OR UP CONVERTERS	22
E118	MAINTAIN TECHNICAL ORDER (TO) FILES	22
K281	ADJUST PILOT TONE DETECTOR COMPONENTS	22
U717	ADJUST PILOT TONE OSCILLATOR COMPONENTS	22
U725	ADJUST SYNTHESIZER COMPONENTS	19
W837	CLEAR MOBILITY WORK AREAS	19
I207	PERFORM SAFETY INSPECTIONS	19
I217	REMOVE OR REPLACE ELECTRONIC MICROMINIATURE COMPONENTS USING SOLDERING METHODS	19
V816	EMPLACE OR ANCHOR EQUIPMENT VANS OR SHELTERS	19

REPRESENTATIVE TASKS PERFORMED BY JUNIOR RADIO RELAY EQUIPMENT PERSONNEL
(GRP113, N=123)

TASKS		PERCENT MEMBERS PERFORMING
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	91
W836	CLEAN MAINTENANCE WORK AREAS	82
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	81
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	80
I206	PERFORM CORROSION CONTROL	74
G152	ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	63
G158	PERFORM BASEBAND SWEEPS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	63
K281	ADJUST PILOT TONE DETECTOR COMPONENTS	55
G155	OBSERVE STATUS DISPLAY PANELS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	53
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICROMINIATURE COMPONENTS USING SOLDERING METHODS	52
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	51
G162	PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	51
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	51
G163	PERFORM SWITCHOVERS OF EQUIPMENT SUBASSEMBLIES TO REDUNDANT EQUIPMENT	50
159	PERFORM CIRCUIT FAULT ISOLATION PROCEDURES AT PATCH AND TEST FACILITIES	49
E120	MAKE ENTRIES ON MAINTENANCE FORMS	48
W853	PAINT EQUIPMENT OR FACILITIES	48
K283	ADJUST RECEIVE COMBINER COMPONENTS	48
K335	PERFORM PMIs ON FM RECEIVERS	47
I195	INSPECT SAFETY OF EQUIPMENT	46
M427	ALIGN FREQUENCY DIVISION MULTIPLEXERS	44
K284	ADJUST RECEIVE INTERMEDIATE FREQUENCY (IF) AMPLIFIER COMPONENTS	44
K273	ADJUST AUTOMATIC GAIN CONTROL (AGC) COMPONENTS	43
G161	PERFORM EMERGENCY POWER CHANGEOVERS	42
G157	PERFORM ALTERNATE CIRCUIT ROUTING AT PATCH AND TEST FACILITIES	41
I207	PERFORM SAFETY INSPECTIONS	41
K292	ALIGN FM RECEIVERS	38
M420	ADJUST GROUP OR LEVEL REGULATOR COMPONENTS	37
W851	OPERATE POWER GENERATORS	36
F141	PREPARE NONREPARABLE OR REPARABLE ITEMS FOR TURN-IN	36
M424	ADJUST PILOT TONE AMPLIFIER COMPONENTS	35
I224	SPLICE WIRING OR CABLES	35
M458	PERFORM PMIs ON FREQUENCY DIVISION MULTIPLEXERS	34
W859	PERFORM SITE SECURITY DUTIES	34

REPRESENTATIVE TASKS PERFORMED BY QUALITY CONTROL PERSONNEL
(GRP117, N=121)

TASKS		PERCENT MEMBERS PERFORMING
C66	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	82
C64	EVALUATE CAPABILITY OF EQUIPMENT	80
B60	WRITE CORRESPONDENCE	79
C71	EVALUATE INSPECTION REPORTS OR PROCEDURES	76
A24	SCHEDULE INSPECTIONS	69
C68	EVALUATE EQUIPMENT OPERATIONAL, MAINTENANCE, OR REPAIR REPORTS	67
E123	PREPARE EVALUATION REPORTS	66
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	64
E121	PREPARE ACTIVITY REPORTS	58
E113	DISTRIBUTE CORRESPONDENCE, TECHNICAL INFORMATION, OR DIRECTIVES	58
C73	EVALUATE MAINTENANCE OR USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	56
A11	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	53
E122	PREPARE DEFICIENCY REPORTS	52
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	50
E114	MAINTAIN CORRESPONDENCE FILES	49
C75	EVALUATE SAFETY PROGRAMS	47
A9	DRAFT SUPPLEMENTS OR CHANGES TO DIRECTIVES	47
A7	DEVELOP WORK METHODS OR PROCEDURES	45
C65	EVALUATE CAUSES OF MISSION ABORTS OR OPERATIONAL DISCREPANCIES	45
C85	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	45
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	44
E116	MAINTAIN PUBLICATION FILES	42
C74	EVALUATE PROCEDURES FOR STORAGE, INVENTORY, OR INSPECTION OF PROPERTY ITEMS	40
I195	INSPECT SAFETY OF EQUIPMENT	40
E118	MAINTAIN TECHNICAL ORDER (TO) FILES	40
A15	PLAN BRIEFINGS	40
I207	PERFORM SAFETY INSPECTIONS	39
F145	REVIEW TABLE OF ALLOWANCES (TA)	37
D106	EVALUATE TRAINING METHODS OR TECHNIQUES	36
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	36
E126	PREPARE REQUISITIONS FOR TECHNICAL ORDERS	36
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	36
A5	DETERMINE WORK PRIORITIES	35
C61	ANALYZE WORKLOAD REQUIREMENTS	34
C62	COMPARE PRODUCTION AGAINST PRODUCTION STANDARDS	33

REPRESENTATIVE TASKS PERFORMED BY FIRSTLINE MAINTENANCE SUPERVISORS
(GRP393, N=148)

TASKS		PERCENT MEMBERS PERFORMING
A5	DETERMINE WORK PRIORITIES	95
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	95
D89	CONDUCT OJT	94
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	91
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	91
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	89
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	89
E120	MAKE ENTRIES ON MAINTENANCE FORMS	88
C82	PREPARE APRs	88
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	88
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	88
F142	PREPARE REQUISITIONS FOR PARTS, TOOLS, OR SUPPLIES	87
F141	PREPARE NONREPARABLE OR REPARABLE ITEMS FOR TURN-IN	84
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	84
A19	PLAN WORK ASSIGNMENTS	82
D91	CONDUCT PROFICIENCY TRAINING	82
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	82
A7	DEVELOP WORK METHODS OR PROCEDURES	82
D95	CONDUCT UPGRADE TRAINING	80
D98	DETERMINE OJT TRAINING REQUIREMENTS	79
I195	INSPECT SAFETY OF EQUIPMENT	78
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	78
I207	PERFORM SAFETY INSPECTIONS	78
A12	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	76
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	76
I206	PERFORM CORROSION CONTROL	76
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICRO-MINIATURE COMPONENTS USING SOLDERING METHODS	76
E115	MAINTAIN HISTORICAL RECORDS	74
A25	SCHEDULE LEAVES OR PASSES	74
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	74
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	74
W836	CLEAN MAINTENANCE WORK AREAS	73
F144	RESEARCH SUPPLY CATALOGS	72
E117	MAINTAIN STATUS BOARDS OR CHARTS	72

REPRESENTATIVE TASKS PERFORMED BY NCOICs, JOB CONTROL
(GRP564, N=41)

TASKS		PERCENT MEMBERS PERFORMING
E117	MAINTAIN STATUS BOARDS OR CHARTS	100
B33	DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	95
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	95
A5	DETERMINE WORK PRIORITIES	93
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	88
E120	MAKE ENTRIES ON MAINTENANCE FORMS	83
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	83
C82	PREPARE APRs	83
B60	WRITE CORRESPONDENCE	78
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	76
A15	PLAN BRIEFINGS	73
A11	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	73
B28	COORDINATE CANNIBALIZATION OF EQUIPMENT PARTS WITH APPROPRIATE AGENCIES	73
D89	CONDUCT OJT	68
D91	CONDUCT PROFICIENCY TRAINING	68
E112	COMPILE MAINTENANCE DATA	66
A7	DEVELOP WORK METHODS OR PROCEDURES	66
A25	SCHEDULE LEAVES OR PASSES	66
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	63
E114	MAINTAIN CORRESPONDENCE FILES	63
A12	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	63
E127	PREPARE STATUS REPORTS	61
B30	DIRECT CONTROL OF CLASSIFIED MATERIALS	61
A19	PLAN WORK ASSIGNMENTS	61
B55	SUPERVISE MILITARY PERSONNEL WITH AFS OTHER THAN 304X0, 304X4, OR 304X6	56
B47	MAINTAIN CONTINGENCY PLANS	54
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	54
E116	MAINTAIN PUBLICATION FILES	51
A9	DRAFT SUPPLEMENTS OR CHANGES TO DIRECTIVES	49
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	49
B35	DIRECT MAINTENANCE OF ADMINISTRATIVE, PUBLICATION, OR TECHNICAL ORDER FILES	46
C80	INDORSE AIRMAN PERFORMANCE REPORTS (APR)	46
C68	EVALUATE EQUIPMENT OPERATIONAL, MAINTENANCE, OR REPAIR REPORTS	44
C79	EVALUATE WORK SCHEDULES	41
D98	DETERMINE OJT TRAINING REQUIREMENTS	41

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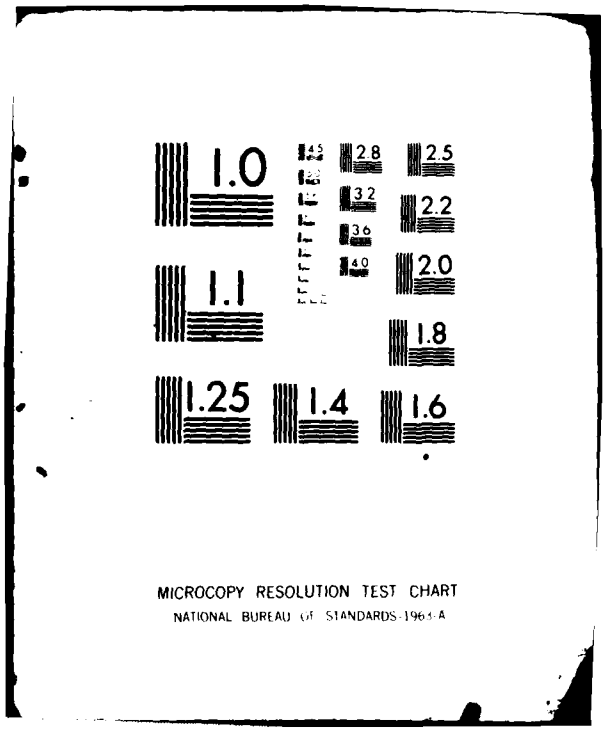
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NATIONAL BUREAU OF STANDARDS-1963-A

REPRESENTATIVE TASKS PERFORMED BY RADIO MAINTENANCE SUPERVISORS
(GRP650, N=160)

TASKS		PERCENT MEMBERS PERFORMING
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	98
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	96
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	94
C82	PREPARE APRs	93
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	89
A25	SCHEDULE LEAVES OR PASSES	89
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	89
A5	DETERMINE WORK PRIORITIES	88
A19	PLAN WORK ASSIGNMENTS	87
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	87
A12	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	86
C71	EVALUATE INSPECTION REPORTS OR PROCEDURES	83
A7	DEVELOP WORK METHODS OR PROCEDURES	83
C80	INDORSE AIRMAN PERFORMANCE REPORTS (APR)	79
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	77
E114	MAINTAIN CORRESPONDENCE FILES	77
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	77
A11	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	76
C73	EVALUATE MAINTENANCE OR USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	75
D87	ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	75
D98	DETERMINE OJT TRAINING REQUIREMENTS	74
B35	DIRECT MAINTENANCE OF ADMINISTRATIVE, PUBLICATION, OR TECHNICAL ORDER FILES	74
C66	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	72
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	71
C83	SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	71
B44	INITIATE PERSONNEL ACTION REQUESTS	71
B41	IMPLEMENT SAFETY PROGRAMS	70
C68	EVALUATE EQUIPMENT OPERATIONAL, MAINTENANCE, OR REPAIR REPORTS	69
C79	EVALUATE WORK SCHEDULES	69
A10	ESTABLISH EQUIPMENT MAINTENANCE REQUIREMENTS	66
C61	ANALYZE WORKLOAD REQUIREMENTS	66
E117	MAINTAIN STATUS BOARDS OR CHARTS	66
C69	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	66
B33	DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	66
C64	EVALUATE CAPABILITY OF EQUIPMENT	65

REPRESENTATIVE TASKS PERFORMED BY RESIDENT TRAINING SUPERVISORS
(GRP711, N=10)

TASKS		PERCENT MEMBERS PERFORMING
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	100
D106	EVALUATE TRAINING METHODS OR TECHNIQUES	100
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	100
C82	PREPARE APRs	100
D88	ASSIGN RESIDENT COURSE INSTRUCTORS	100
D93	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	100
D105	EVALUATE PROGRESS OF STUDENTS	90
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	90
D86	ADMINISTER TESTS	90
A19	PLAN WORK ASSIGNMENTS	90
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	90
A25	SCHEDULE LEAVES OR PASSES	90
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	90
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	90
D109	SCORE TESTS	80
C66	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	80
A7	DEVELOP WORK METHODS OR PROCEDURES	80
D99	DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	70
D108	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	70
D91	CONDUCT PROFICIENCY TRAINING	70
A12	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	70
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	70
C71	EVALUATE INSPECTION REPORTS OR PROCEDURES	70
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	70
D110	WRITE TEST QUESTIONS	60
B52	SUPERVISE CIVILIAN PERSONNEL	60
C84	WRITE CIVILIAN PERFORMANCE RATINGS OR SUPERVISORY APPRAISALS	60
B60	WRITE CORRESPONDENCE	60
E114	MAINTAIN CORRESPONDENCE FILES	60
C83	SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	60
D95	CONDUCT UPGRADE TRAINING	60
A15	PLAN BRIEFINGS	60
A5	DETERMINE WORK PRIORITIES	60
A11	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	60
D101	DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	50

REPRESENTATIVE TASKS PERFORMED BY TOOL CRIB SUPERVISORS
(GRP442, N=12)

TASKS		PERCENT MEMBERS PERFORMING
F142	PREPARE REQUISITIONS FOR PARTS, TOOLS, OR SUPPLIES	100
C82	PREPARE APRs	100
A5	DETERMINE WORK PRIORITIES	100
F141	PREPARE NONREPARABLE OR REPARABLE ITEMS FOR TURN-IN	92
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	92
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	83
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	83
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	83
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	75
E115	MAINTAIN HISTORICAL RECORDS	75
E117	MAINTAIN STATUS BOARDS OR CHARTS	75
A19	PLAN WORK ASSIGNMENTS	75
E113	DISTRIBUTE CORRESPONDENCE, TECHNICAL INFORMATION, OR DIRECTIVES	67
B38	DIRECT SUPPLY FUNCTIONS OR TOOL CRIB OPERATIONS	67
F144	RESEARCH SUPPLY CATALOGS	67
F138	MAINTAIN OFFICE SUPPLIES	67
E120	MAKE ENTRIES ON MAINTENANCE FORMS	67
E114	MAINTAIN CORRESPONDENCE FILES	58
F128	COORDINATE EQUIPMENT CALIBRATION WITH PRECISION MEASUREMENT EQUIPMENT LABORATORIES (PMEL)	58
F134	MAINTAIN BENCHSTOCKS	58
B34	DIRECT MAINTENANCE CREW ACTIVITIES	58
B35	DIRECT MAINTENANCE OF ADMINISTRATIVE, PUBLICATION, OR TECHNICAL ORDER FILES	58
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	58
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	58
I207	PERFORM SAFETY INSPECTIONS	58
F145	REVIEW TABLE OF ALLOWANCES (TA)	58
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	58
E112	COMPILE MAINTENANCE DATA	50
B56	SUPERVISE RADIO RELAY EQUIPMENT (WIDEBAND COMMUNICATIONS EQUIPMENT) SPECIALISTS (AFSC 30450)	50
B33	DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	50
W848	MAINTAIN TOOL CRIBS	50
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	50
C73	EVALUATE MAINTENANCE OR USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	50
F139	MAINTAIN PMEL CALIBRATION CHARTS	42
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	42

REPRESENTATIVE TASKS PERFORMED BY BASE INSTALLATION SECURITY SYSTEM PERSONNEL
(GRP232, N=75)

TASKS		PERCENT MEMBERS PERFORMING
W836	CLEAN MAINTENANCE WORK AREAS	93
T668	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM FENCE DISTRUBANCE SENSOR SYSTEM	92
T659	ISOLATE MALFUNCTIONS IN PERIMETER SECURITY SYSTEMS	92
T638	ADJUST SECURITY SYSTEM FENCE DISTURBANCE SENSOR SYSTEM COMPONENTS	91
T633	ADJUST SECURITY SYSTEM AREA SENSOR SYSTEM COMPONENTS	87
T687	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON PERIMETER SECURITY SYSTEMS	84
T663	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM AREA SENSOR SYSTEMS	80
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	79
T661	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM ANNUNCIATORS	79
E120	MAKE ENTRIES ON MAINTENANCE FORMS	72
T657	ALIGN PERIMETER SECURITY SYSTEMS	72
T632	ADJUST SECURITY SYSTEM ANNUNCIATOR COMPONENTS	72
T635	ADJUST SECURITY SYSTEM CONTROL POWER SUPPLY COMPONENTS	72
I206	PERFORM CORROSION CONTROL	69
T680	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM SENSOR DATA DECODERS	69
T666	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM DIGITAL DATA RECEIVERS	67
T653	ADJUST SECURITY SYSTEM TELEVISION MONITOR COMPONENTS	63
T676	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM OPERATOR SENSOR DATA CONTROL INDICATOR CONSOLES	63
T665	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM CONTROL POWER SUPPLIES	63
F141	PREPARE NONREPARABLE OR REPARABLE ITEMS FOR TURN-IN	61
I219	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	61
T678	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM SEISMIC SENSOR SYSTEMS	60
T682	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM TELEVISION CAMERAS	60
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICRO-MINIATURE COMPONENTS USING SOLDERING METHODS	60
T652	ADJUST SECURITY SYSTEM TELEVISION CAMERA COMPONENTS	59
T679	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM SENSOR MULTIPLEXERS	59
T683	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM TELEVISION MONITORS	57
T636	ADJUST SECURITY SYSTEM DIGITAL DATA RECEIVER COMPONENTS	57
T673	ISOLATE MALFUNCTIONS IN SECURITY SYSTEM LINE SENSOR SYSTEMS	56
I198	ISOLATE MALFUNCTIONS IN ANTI-INTRUSION PECULIAR TEST EQUIPMENT	56
I224	SPLICE WIRING OR CABLES	55
T649	ADJUST SECURITY SYSTEM SENSOR DATA DECODER COMPONENTS	55
T655	ADJUST SECURITY SYSTEM TELEVISION VIDEO AMPLIFIER COMPONENTS	53
T644	ADJUST SECURITY SYSTEM LINE SENSOR SYSTEM COMPONENTS	52

REPRESENTATIVE TASKS PERFORMED BY MOBILE ENGINEERING AND INSTALLATION PERSONNEL
(GRP273, N=14)

TASKS		PERCENT MEMBERS PERFORMING
W836	CLEAN MAINTENANCE WORK AREAS	100
W853	PAINT EQUIPMENT OR FACILITIES	93
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	93
W837	CLEAR MOBILITY WORK AREAS	64
W849	OPERATE HEAVY DUTY VEHICLES, SUCH AS 1 1/2-TON TRUCKS OR 10-TON TRACTOR-TRAILER COMBINATIONS	64
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	64
V825	INSTALL OR REMOVE MOBILE COMMUNICATION EQUIPMENT	57
I206	PERFORM CORROSION CONTROL	50
V816	EMPLACE OR ANCHOR EQUIPMENT VANS OR SHELTERS	43
V818	INSTALL OR REMOVE CABLING BETWEEN SITE VANS	36
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	36
W859	PERFORM SITE SECURITY DUTIES	29
I224	SPLICE WIRING OR CABLES	29
W851	OPERATE POWER GENERATORS	29
V830	LOAD OR UNLOAD SUPPORT EQUIPMENT ON AIRCRAFT	29
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	29
W858	PERFORM OPERATOR MAINTENANCE ON POWERED VEHICLES	21
W854	PERFORM OPERATOR MAINTENANCE ON GROUND SUPPORT EQUIPMENT	21
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	21
W839	LUBRICATE VAN OR TRAILER CHASSIS	21
I192	CRATE OR UNCRATE COMPONENTS OR MODULES	21
M427	ALIGN FREQUENCY DIVISION MULTIPLEXERS	21
V813	CONSTRUCT SITE LATRINES	21
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICROMINIATURE COMPONENTS USING SOLDERING METHODS	21
M458	PERFORM PMIs ON FREQUENCY DIVISION MULTIPLEXERS	21
V835	VISUALLY INSPECT INSTALLATION AND INTERCONNECTIONS OF INSTALLED EQUIPMENT	21
I219	REMOVE OR REPLACE ELETRONIC SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	21
G152	ESTABLISH ORDERWIRE CONTACT WITH DISTANT TERMINALS	21
K286	ADJUST SQUELCH CIRCUIT COMPONENTS	21
K288	ADJUST THRESHOLD EXTENDER COMPONENTS	21
K848	MAINTAIN TOOL CRIBS	14
W862	SECURE CLASSIFIED MATERIALS	14
I212	REMOVE OR REPLACE ELECTROMECHANICAL COMPONENTS USING METHODS OTHER THAN SOLDERING	14
K292	ALIGN FM RECEIVERS	14
W847	MAINTAIN SITE HEATING SYSTEMS	14

REPRESENTATIVE TASKS PERFORMED BY FIXED ENGINEERING AND INSTALLATION PERSONNEL
(GRP154, N=40)

TASKS		PERCENT MEMBERS PERFORMING
V820	INSTALL OR REMOVE FIXED COMMUNICATION EQUIPMENT	88
I196	INSTALL OR REMOVE MOUNTING HARDWARE	72
V808	ASSEMBLE SYSTEMS OR SUBSYSTEMS FROM COMPONENT PARTS	70
I205	LACE CABLE ASSEMBLIES OR INTERNAL WIRING	67
W836	CLEAN MAINTENANCE WORK AREAS	57
V819	INSTALL OR REMOVE COMMUNICATIONS OR CONTROL TOWERS	50
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	50
I224	SPLICE WIRING OR CABLES	50
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	47
I192	CRATE OR UNCRATE COMPONENTS OR MODULES	45
I215	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICROMINIATURE COMPONENTS USING SOLDERING METHODS	45
V835	VISUALLY INSPECT INSTALLATION AND INTERCONNECTIONS OF INSTALLED EQUIPMENT	38
V810	CONSTRUCT CABLE TROUGHS	38
W853	PAINT EQUIPMENT OR FACILITIES	35
V822	INSTALL OR REMOVE INTERMEDIATE DISTRIBUTION FRAMES (IDF)	35
V824	INSTALL OR REMOVE MAIN DISTRIBUTION FRAMES (MDF)	32
I220	REMOVE OR REPLACE MECHANICAL COMPONENTS	32
I221	REMOVE OR REPLACE MECHANICAL SUBASSEMBLIES	32
I218	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES, SUCH AS MODULES OR PRINTED CIRCUIT BOARDS, USING SOLDERING METHODS	32
I219	REMOVE OR REPLACE ELECTRONIC SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	32
I216	REMOVE OR REPLACE ELECTRONIC COMPONENTS OTHER THAN MICRO-MINIATURE COMPONENTS USING METHODS OTHER THAN SOLDERING	30
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	30
V812	CONSTRUCT INTERCONNECTS	27
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	27
I195	INSPECT SAFETY OF EQUIPMENT	25
I208	PERFORM SYSTEM MODIFICATIONS	25
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	25
G162	PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	22
I213	REMOVE OR REPLACE ELECTROMECHANICAL SUBASSEMBLIES USING METHODS OTHER THAN SOLDERING	20
I206	PERFORM CORROSION CONTROL	17
V809	CHECK LAND LINE CONNECTIONS	17
I207	PERFORM SAFETY INSPECTIONS	17
V823	INSTALL OR REMOVE LINE CONDITIONING EQUIPMENT	17
I212	REMOVE OR REPLACE ELECTROMECHANICAL COMPONENTS USING METHODS OTHER THAN SOLDERING	15
I209	POSITION SAFETY EQUIPMENT	15

REPRESENTATIVE TASKS PERFORMED BY RESIDENT TECHNICAL SCHOOL INSTRUCTORS (GRP243, N=77)

TASKS		PERCENT MEMBERS PERFORMING
D109	SCORE TESTS	100
D93	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	97
D86	ADMINISTER TESTS	95
D105	EVALUATE PROGRESS OF STUDENTS	92
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	79
D110	WRITE TEST QUESTIONS	65
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	61
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	58
D92	CONDUCT REMEDIAL TRAINING	58
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	56
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	48
D106	EVALUATE TRAINING METHODS OR TECHNIQUES	40
D108	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	29
C66	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	25
D101	DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	25
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	25
G162	PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	22
D91	CONDUCT PROFICIENCY TRAINING	19
D103	DIRECT OR IMPLEMENT TRAINING PROGRAMS OTHER THAN OJT	18
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	18
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	18
D99	DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	17
I195	INSPECT SAFETY OF EQUIPMENT	16
E118	MAINTAIN TECHNICAL ORDER (TO) FILES	13
C64	EVALUATE CAPABILITY OF EQUIPMENT	13
D111	WRITE TRAINING REPORTS	12
E120	MAKE ENTRIES ON MAINTENANCE FORMS	12
B60	WRITE CORRESPONDENCE	12
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	10
A7	DEVELOP WORK METHODS OR PROCEDURES	10
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	10
M427	ALIGN FREQUENCY DIVISION MULTIPLEXERS	10
A15	PLAN BRIEFINGS	10
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	9
B41	IMPLEMENT SAFETY PROGRAMS	9

REPRESENTATIVE TASKS PERFORMED BY INSTRUCTORS AND MAINTENANCE PERSONNEL
(GRP227, N=19)

TASKS		PERCENT MEMBERS PERFORMING
D105	EVALUATE PROGRESS OF STUDENTS	95
D106	EVALUATE TRAINING METHODS OR TECHNIQUES	95
D86	ADMINISTER TESTS	89
D108	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	89
D92	CONDUCT REMEDIAL TRAINING	89
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	89
D109	SCORE TESTS	89
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	84
D110	WRITE TEST QUESTIONS	84
G165	READ METERS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	84
D93	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	79
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	79
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	79
D91	CONDUCT PROFICIENCY TRAINING	68
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	68
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	68
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	68
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	63
I195	INSPECT SAFETY OF EQUIPMENT	63
G162	PERFORM PREOPERATIONAL CHECKS OF EQUIPMENT	53
D99	DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	53
A7	DEVELOP WORK METHODS OR PROCEDURES	53
I207	PERFORM SAFETY INSPECTIONS	53
D111	WRITE TRAINING REPORTS	47
G146	CONFIGURE PATCH PANELS FOR ANALOG OPERATIONS	47
C66	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	42
D89	CONDUCT OJT	42
D94	CONDUCT SPECIAL TRAINING CONFERENCES OR BRIEFINGS	42
C64	EVALUATE CAPABILITY OF EQUIPMENT	42
G155	OBSERVE STATUS DISPLAY PANELS TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	42
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	42
N464	ADJUST FREQUENCY SHIFT CONVERTER COMPONENTS	42
N463	ADJUST FREQUENCY SHIFT KEYER COMPONENTS	42
D95	CONDUCT UPGRADE TRAINING	37
G147	CONFIGURE PATCH PANELS FOR DIGITAL OPERATIONS	37

REPRESENTATIVE TASKS PERFORMED BY JOB CONTROLLERS
(GRP491, N=58)

TASKS		PERCENT MEMBERS PERFORMING
E117	MAINTAIN STATUS BOARDS OR CHARTS	97
A5	DETERMINE WORK PRIORITIES	88
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	86
E112	COMPILE MAINTENANCE DATA	69
E120	MAKE ENTRIES ON MAINTENANCE FORMS	67
E127	PREPARE STATUS REPORTS	53
B28	COORDINATE CANNIBALIZATION OF EQUIPMENT PARTS WITH APPROPRIATE AGENCIES	48
B33	DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	41
A15	PLAN BRIEFINGS	40
B34	DIRECT MAINTENANCE CREW ACTIVITIES	31
D89	CONDUCT OJT	31
F130	COORDINATE REPAIR OF EQUIPMENT WITH VENDORS OR OTHER AGENCIES	28
W862	SECURE CLASSIFIED MATERIALS	28
B30	DIRECT CONTROL OF CLASSIFIED MATERIALS	22
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	19
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	17
C82	PREPARE APRs	17
E116	MAINTAIN PUBLICATION FILES	17
B37	DIRECT PREMISSION CHECKOUT OF EQUIPMENT OR MATERIALS	14
W836	CLEAN MAINTENANCE WORK AREAS	14
A24	SCHEDULE INSPECTIONS	14
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	14
E118	MAINTAIN TECHNICAL ORDER (TO) FILES	10
A21	PREPARE MAINTENANCE ACTIVITY SCHEDULES	10
E113	DISTRIBUTE CORRESPONDENCE, TECHNICAL INFORMATION, OR DIRECTIVES	10
D96	COUNSEL TRAINEES ON TRAINING PROGRESS	10
A26	SCHEDULE USE OF EQUIPMENT	9
B55	SUPERVISE MILITARY PERSONNEL WITH AFS OTHER THAN 304X0, 304X4, OR 304X6	9
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	9
A19	PLAN WORK ASSIGNMENTS	9
C61	ANALYZE WORKLOAD REQUIREMENTS	9
C64	EVALUATE CAPABILITY OF EQUIPMENT	9
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	9
A22	PREPARE MAINTENANCE SCHEDULES	9
G151	ESTABLISH COMMUNICATION USER PRIORITIES	7

REPRESENTATIVE TASKS PERFORMED BY PLANS AND SCHEDULING PERSONNEL (GRP481, N=14)

TASKS		PERCENT MEMBERS PERFORMING
B60	WRITE CORRESPONDENCE	100
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	93
E112	COMPILE MAINTENANCE DATA	93
E113	DISTRIBUTE CORRESPONDENCE, TECHNICAL INFORMATION, OR DIRECTIVES	79
E114	MAINTAIN CORRESPONDENCE FILES	71
A5	DETERMINE WORK PRIORITIES	71
A24	SCHEDULE INSPECTIONS	64
A21	PREPARE MAINTENANCE ACTIVITY SCHEDULES	64
A11	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	64
A26	SCHEDULE USE OF EQUIPMENT	57
E117	MAINTAIN STATUS BOARDS OR CHARTS	57
B33	DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	57
A22	PREPARE MAINTENANCE SCHEDULES	57
E116	MAINTAIN PUBLICATION FILES	50
A7	DEVELOP WORK METHODS OR PROCEDURES	50
E120	MAKE ENTRIES ON MAINTENANCE FORMS	43
E118	MAINTAIN TECHNICAL ORDER (TO) FILES	36
B35	DIRECT MAINTENANCE OF ADMINISTRATIVE, PUBLICATION, OR *TECHNICAL ORDER FILES*	36
E127	PREPARE STATUS REPORTS	36
C82	PREPARE APRs	36
D89	CONDUCT OJT	36
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	29
E115	MAINTAIN HISTORICAL RECORDS	29
F130	COORDINATE REPAIR OF EQUIPMENT WITH VENDORS OR OTHER AGENCIES	29
A9	DRAFT SUPPLEMENTS OR CHANGES TO DIRECTIVES	29
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	29
B29	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	29
B28	COORDINATE CANNIBALIZATION OF EQUIPMENT PARTS WITH APPROPRIATE AGENCIES	29
B45	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	21
A19	PLAN WORK ASSIGNMENTS	21
A15	PLAN BRIEFINGS	21
C71	EVALUATE INSPECTION REPORTS OR PROCEDURES	21
F138	MAINTAIN OFFICE SUPPLIES	21
C61	ANALYZE WORKLOAD REQUIREMENTS	21

REPRESENTATIVE TASKS PERFORMED BY SUPPLY PERSONNEL
(GRP281, N=10)

TASKS		PERCENT MEMBERS PERFORMING
F134	MAINTAIN BENCHSTOCKS	100
F144	RESEARCH SUPPLY CATALOGS	90
F141	PREPARE NONREPARABLE OR REPARABLE ITEMS FOR TURN-IN	90
F142	PREPARE REQUISITIONS FOR PARTS, TOOLS, OR SUPPLIES	80
B46	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	80
B38	DIRECT SUPPLY FUNCTIONS OR TOOL CRIB OPERATIONS	60
F135	MAINTAIN EQUIPMENT ACCOUNTABILITY RECORDS	60
F139	MAINTAIN PMEL CALIBRATION CHARTS	60
E117	MAINTAIN STATUS BOARDS OR CHARTS	60
F129	COORDINATE LOCAL PURCHASES WITH MAINTENANCE OFFICERS OR BASE SUPPLY	60
F137	MAINTAIN INVENTORY RECORDS	50
F128	COORDINATE EQUIPMENT CALBIRATION WITH PRECISION MEASUREMENT EQUIPMENT LABORATORIES (PMEL)	50
F140	MAINTAIN SPARE PART SUPPLY LEVELS OTHER THAN BENCHSTOCK OR FORWARD SUPPLY POINTS	50
B37	DIRECT PREMISSION CHECKOUT OF EQUIPMENT OR MATERIALS	50
F136	MAINTAIN FORWARD SUPPLY POINTS	40
F138	MAINTAIN OFFICER SUPPLIES	40
E120	MAKE ENTRIES ON MAINTENANCE FORMS	40
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	40
F143	PREPARE SUPPLY DIFFICULTY REPORTS, SUCH AS QUALITY DEFICIENCY REPORTS (QDRs)	40
A5	DETERMINE WORK PRIORITIES	40
F130	COORDINATE REPAIR OF EQUIPMENT WITH VENDORS OR OTHER AGENCIES	40
E112	COMPILE MAINTENANCE DATA	30
I191	CONSTRUCT SHOP CABLES OR TEST PLUGS	30
F131	COORDINATE SHIPPING OR RECEIVING WITH GOVERNMENT CALIBRATION FACILITIES	30
D89	CONDUCT OJT	30
A15	PLAN BRIEFINGS	30
B49	SUPERVISE APPRENTICE GROUND BASE RADIO COMMUNICATIONS SPECIALISTS (AFSC 30434)	20
E118	MAINTAIN TECHNICAL ORDER (TO) FILES	20
F145	REVIEW TABLE OF ALLOWANCES (TA)	20
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	20
G164	PERFORM TURN-ON OR TURN-OFF PROCEDURES	20
A22	PREPARE MAINTENANCE SCHEDULES	20
G156	OBSERVE TEST EQUIPMENT, SUCH AS SCOPES OR SIGNAL ANALYZERS, TO DETERMINE EQUIPMENT OPERATION OR SIGNAL QUALITY	20
A26	SCHEDULE USE OF EQUIPMENT	20
B33	DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	20

REPRESENTATIVE TASKS PERFORMED BY LIMITED EXPERIENCE QUALITY CONTROL PERSONNEL
(GRP464, N=10)

	TASKS	PERCENT MEMBERS PERFORMING
E188	MAINTAIN TECHNICAL ORDER (TO) FILES	90
E121	PREPARE ACTIVITY REPORTS	90
E126	PREPARE REQUISITIONS FOR TECHNICAL ORDERS	90
A24	SCHEDULE INSPECTIONS	90
E123	PREPARE EVALUATION REPORTS	80
E116	MAINTAIN PUBLICATION FILES	70
A3	COORDINATE WORK ACTIVITIES WITH OTHER UNITS OR AGENCIES	60
C66	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	50
E114	MAINTAIN CORRESPONDENCE FILES	50
E122	PREPARE DEFICIENCY REPORTS	50
B60	WRITE CORRESPONDENCE	50
B35	DIRECT MAINTENANCE OF ADMINISTRATIVE, PUBLICATION, OR TECHNICAL ORDER FILES	40
E125	PREPARE REQUISITIONS FOR PUBLICATIONS	40
E113	DISTRIBUTE CORRESPONDENCE, TECHNICAL INFORMATION, OR DIRECTIVES	40
C71	EVALUATE INSPECTION REPORTS OR PROCEDURES	40
C73	EVALUATE MAINTENANCE OR USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	40
D107	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	30
D97	DEMONSTRATE HOW TO LOCATE NONTECHNICAL OR TECHNICAL INFORMATION	30
A11	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	30
C83	SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	20
C68	EVALUATE EQUIPMENT OPERATIONAL, MAINTENANCE, OR REPAIR REPORTS	20
C64	EVALUATE CAPABILITY OF EQUIPMENT	20
W852	OPERATE SMALL GOVERNMENT VEHICLES, SUCH AS PICKUPS OR PASSENGER VEHICLES	20
A13	ESTABLISH PUBLICATION LIBRARIES	20
W853	PAINT EQUIPMENT OR FACILITIES	10
B55	SUPERVISE MILITARY PERSONNEL WITH AFS OTHER THAN 304X0, 304X4, OR 304X6	10
C75	EVALUATE SAFETY PROGRAMS	10
C65	EVALUATE CAUSES OF MISSION ABORTS OR OPERATIONAL DISCREPANCIES	10
C67	EVALUATE CONTRACT DATA REQUIREMENT LISTINGS (CDRL)	10
I207	PERFORM SAFETY INSPECTIONS	10
W855	PERFORM OPERATOR MAINTENANCE ON HAND OR AUTOMATIC WEAPONS	10
W859	PERFORM SITE SECURITY DUTIES	10
W863	SECURE WEAPONS	10